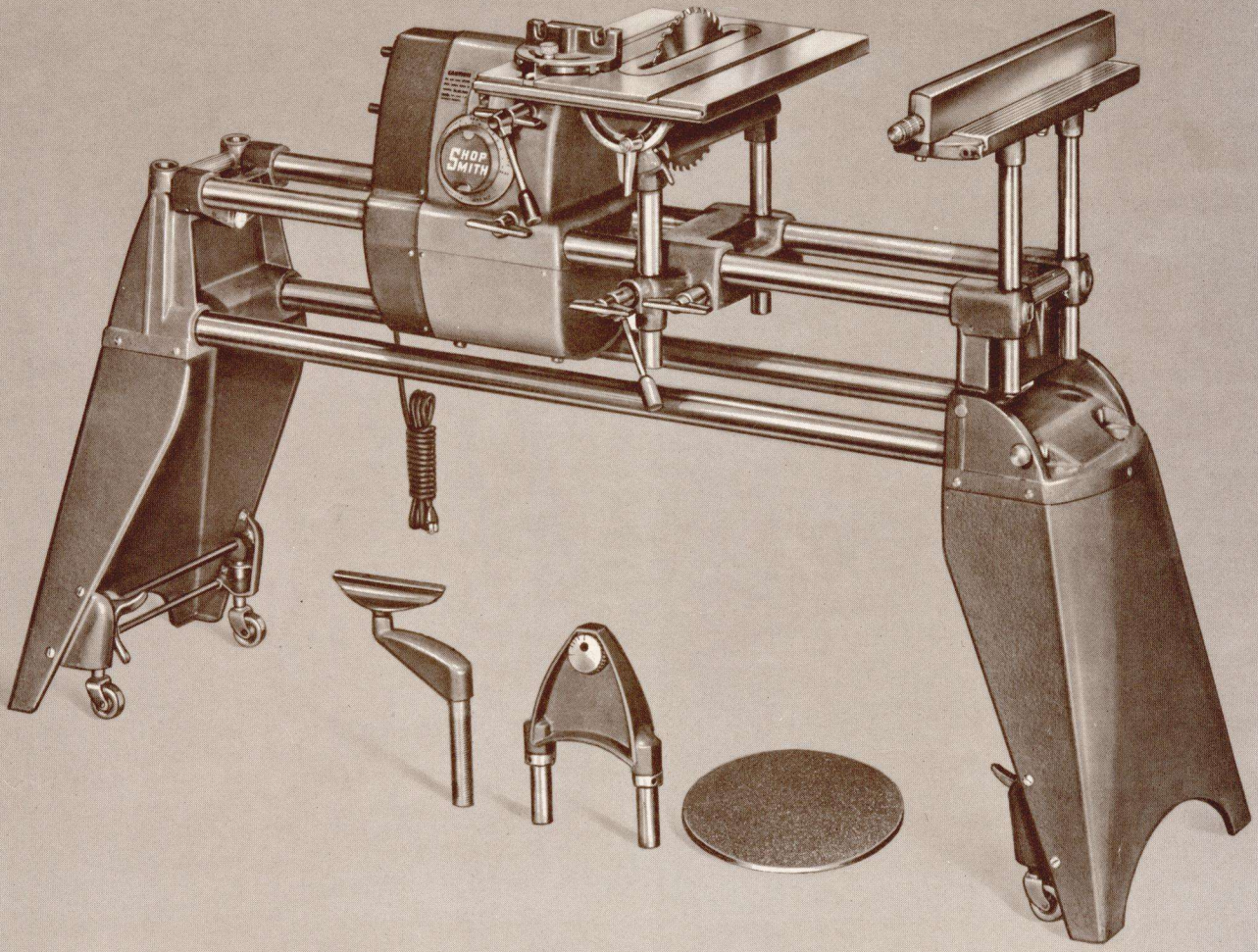
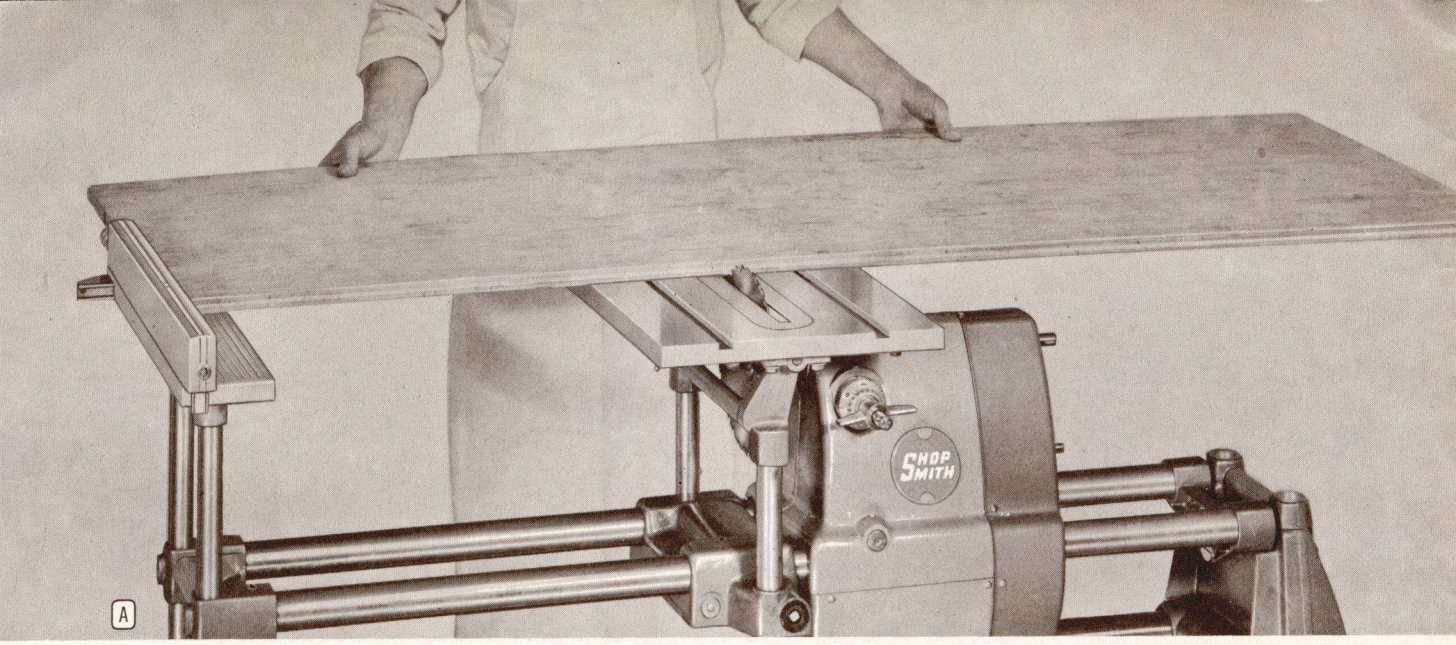


POWR-KRAFT POWER TOOL CATALOG

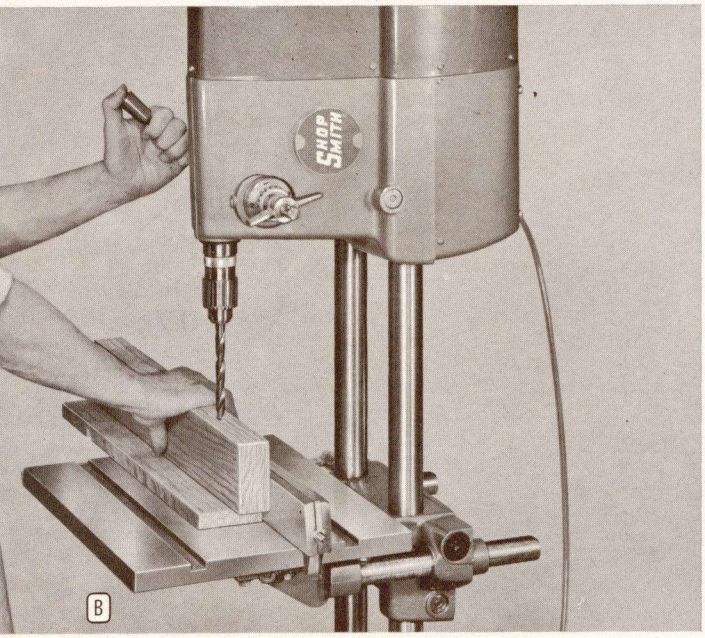
The Shopsmith Mark 5, the first modern power workshop, shown above, is described on Pages 2 and 3. Complete ordering information on Page 29. Monthly Payment Plan details on Page 32. Convenient Index to all items on Page 40.

Montgomery Ward • 1955-56

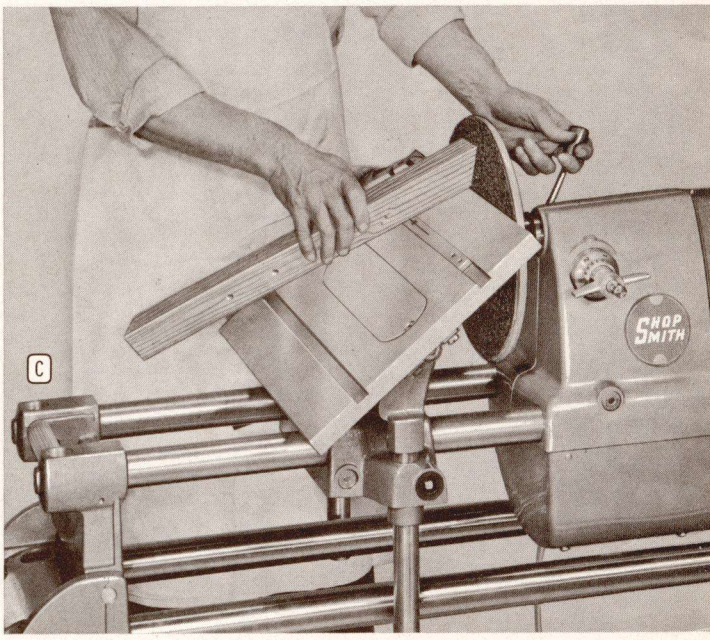
Chicago • Baltimore • Albany



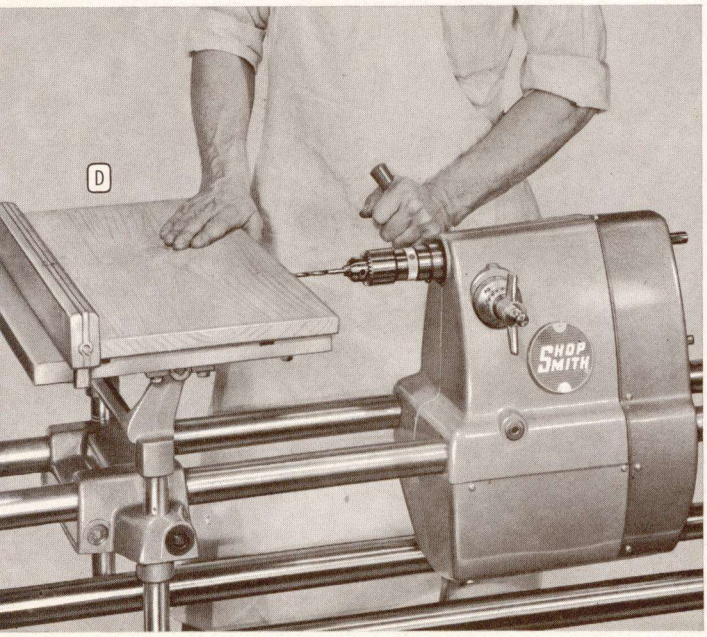
Shopsmith as 9-in. Circular Saw



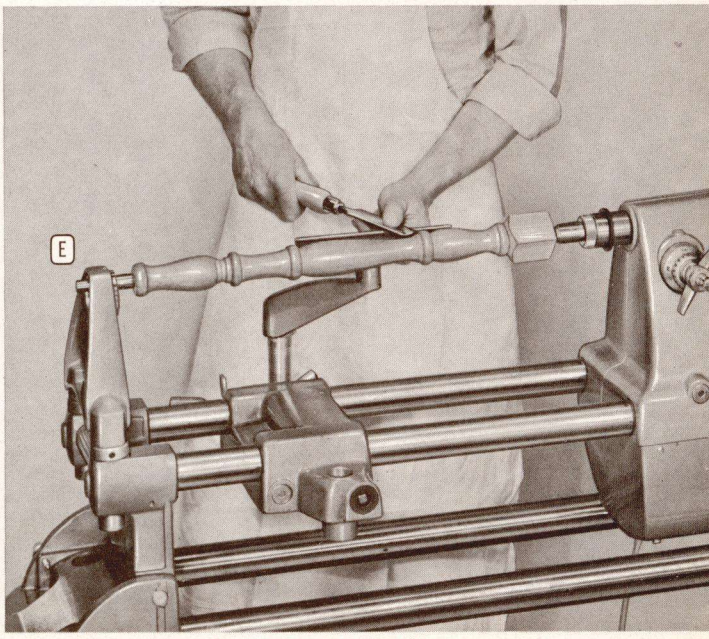
Shopsmith as 16½-in. Vertical Drill Press



Shopsmith as 12-in. Disc Sander



Shopsmith as Horizontal Drill



Shopsmith as 34-in. Wood Lathe

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Shopsmith Mark 5 Power Workshop

Shopsmith Mark 5—finest, most modern and complete multi-purpose power workshop ever built. Fully guaranteed.* Incorporates time and labor-saving features never before found in any power tool. Shopsmith principle combines bench saw, disc sander, lathe, vertical drill press and horizontal drill into one compact unit with no duplication of major assemblies. Shopsmith uses one spindle, one table, one motor and one frame. Ball bearing spindle is induction hardened, lubricated for life; tip is machined to tolerance of .0002-in. fit and to maximum run-out of .001 in. Built-in ¾-HP ball bearing capacitor motor has adequate power for every operation. Aluminum alloy table, 14x18⅜ in., provides precision base; integral milled fence bar assures perfect alignment. Rugged frame provides sturdy bench for all operations—upper steel tubes are satin hard-chrome plated.

Shopsmith Mark 5 makes any room a workshop. Requires only 19x71-in. floor space. Rugged construction, versatility, extra capacity make Shopsmith an efficient all-purpose power tool for farm or home workshop, construction and maintenance shops.

Engineered for maximum safety. Belts, pulleys and motor, dangerous on most power tools, are fully enclosed. Safety switch cannot be accidentally turned on but can be flicked off instantly. All operating handles are clearly marked—operator can devote full attention to cutting tool and workpiece. Delivered complete—no motor to attach, no bench to build. Attach bench ends and plug it in. Check these features:

For more complete information send for Free 20-Page Shopsmith Catalog.

SPEED DIAL (see 1 below). Select spindle speed by turning dial to operation desired. Dial indicates correct settings for sawing, jointing, routing, dadoing, disc sanding, etc. Infinite speed range from 700 to 5200 RPM with a simple turn of the dial—no belts or pulleys to change—no calculating necessary.

POWER MOUNT (see 2 below). The combination of twin tubular holes in headrest for mounting jointer and jig saw, a flexible coupling (order separately) and two auxiliary rear spindles driven by built-in motor. Through Power Mount, Shopsmith Mark 5 quickly and easily becomes a jointer or jig saw and can also be used for dual operations such as circular sawing and jointing or jig sawing and sanding without adjusting tool between operations. In addition, an infinite range of speeds is available for each operation through Speed Dial.

DEPTH CONTROL DIAL (see 3 below). Dial depth control on 4¼-in. quill feed is simple and accurate—just turn depth dial to setting required and lock; it's ready to operate. There are no inconvenient stop nuts or rods to adjust.

TABLE HEIGHT CONTROL (see 4 below). Rack and pinion in carriage control height of table accurately and smoothly. Quick release lever raises and lowers table — engages or disengages with simple turn.

Other special Shopsmith Mark 5 features include:

DUAL-LOCK RIP FENCE. One-knob control squares and locks front and rear of fence with a simple turn. Depth-of-cut scale engraved on both sides.

SAW TABLE INSERT. Protects saw teeth and table insert from damage. Projection on either side o insert slot provides clearance for saw teeth though blade may be rubbing agair.st projection

MITER GAUGE. Has auto-stops at 45°, 90° and 45° for settings at most used angles. New taper-lock set screw in miter gauge bar locks miter gauge in any position in miter gauge slots.

Shopsmith does the work of these 5 tools:

AS A 9-IN. CIRCULAR SAW (see A on opposite page). Extra-large capacity—maximum depth of cut 2½ in.; 2⅜ in. at 45°. Full 48 in. between blade and rip fence—you can saw an 8-ft. panel exactly in half. Perfect for crosscutting, ripping, dadoing, mitering, beveling, compound cuts and other operations. With special 1¼-in. diam. saw arbor.

AS A 16½-in. VERTICAL DRILL PRESS (see Picture (B)). Drills to center of 16½-in. circle—26 in. between chuck and table; as floor press, has 58 in. between chuck and floor. 4¼-in. feed.

AS A 12-IN. DISC SANDER (see C opposite page). Does plain, compound, beveled sanding. 113-sq. in. sanding area. Dial depth control on spindle quill feed permits hairline control.

AS A HORIZONTAL DRILL (see D on opposite page). Capacity is unlimited—you can drill into any board that will fit into the workshop. Adjustable table ht. makes dowel drilling easy, accurate.

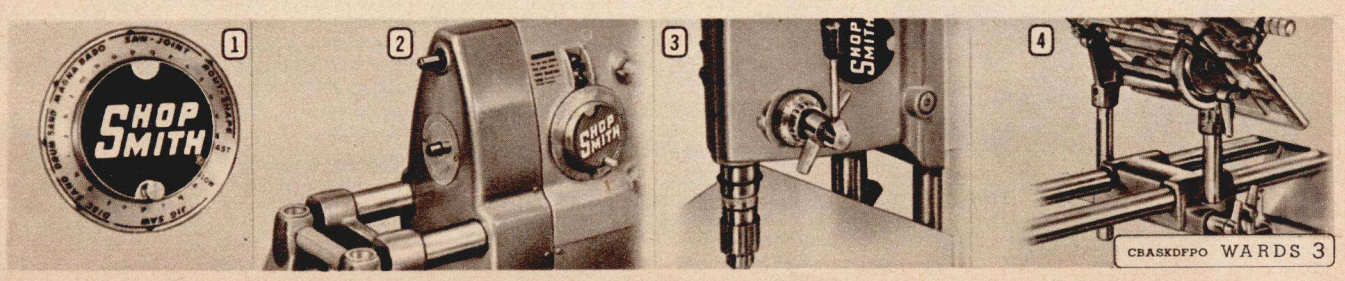
AS A 34-IN. LATHE (see E on opposite page). 16½-in. swing over ways. Maximum distance between centers, 34 in. Cup center eccentric mount permits controlled offset for turning tapers.

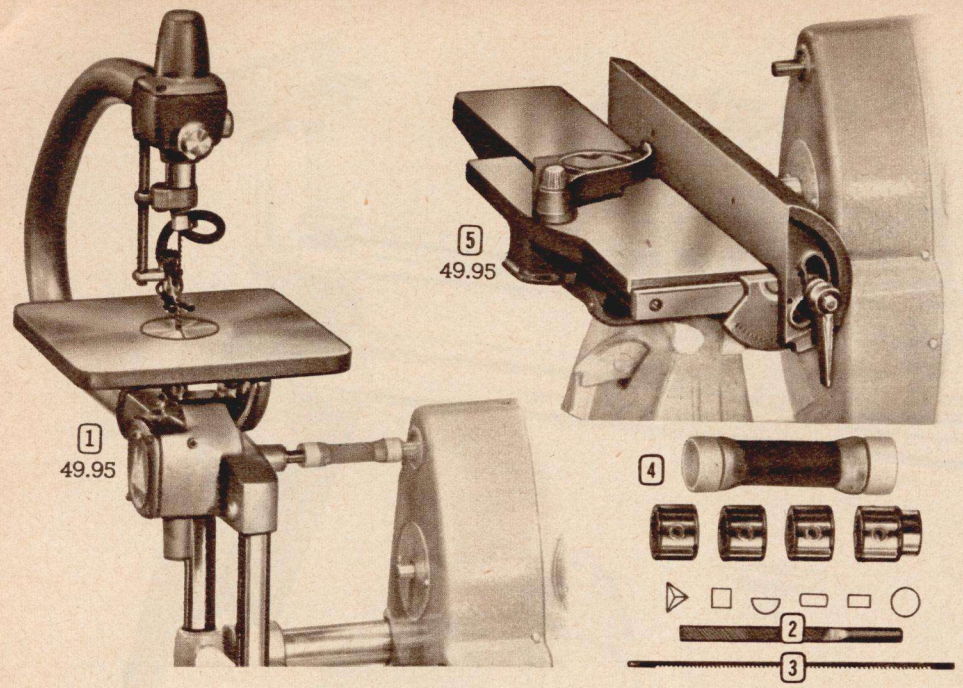
Includes: built-in ¾-HP 110–120 volt, 60 cycle AC ball bearing capacitor motor; bench ends and bench tubes; table extension; 9-in. all-purpose saw blade (with special 1¼-in. diam. arbor); 12-in. sanding disc, sanding sheet and adhesive; drive and cup centers; tool rest; rip fence; miter gauge; ½-in. Jacobs keyed chuck; instructions. Shipped *Prepaid* promptly from Factories in Cleveland, Ohio or near Oakland, Calif.; or from Stock in St. Paul, Kansas City, Denver, Ft. Worth.

84 KRP 3469 F—Special Low Terms.
$10 Down, $14 per Month....Cash Price 289.50

*SHOPSMITH IS GUARANTEED against defects in parts or workmanship. Wards will repair or replace any detective parts within 1 year of purchase.

SEE COMPLETE LISTINGS OF SHOPSMITH ATTACHMENTS AND ACCESSORIES ON PAGES 4 TO 7





Shopsmith Power-Mount Accessories—Jig Saw, Jointer, Sprayer

MAGNA 18-INCH JIGSAW ATTACHMENT 49.95

[1] Fits Shopsmith Mark 5. *Guaranteed for one year. Heavy-duty ball bearing model. Attaches quickly and easily with Power-Mount Coupling Kit (4). Cuts to center of 36-in. panel; depth of cut 2 inches. For use as saber saw or filing machine, tubular arm can be pivoted to position below table surface.

Utilizes Shopsmith Speed Dial to provide correct speed for cutting wood, plastic, metal, cardboard, etc. Special high-speed drive mechanism runs in continuous oil bath—operates smoothly at speeds impossible with many conventional jigsaws. Large 11x11-inch table tilts to 45°. Chucks index 90° to provide clearance for long workpieces. Equipment includes: built-in blower, adjustable blade guide, hold down, 5-in. plain end blade and blade tensioning device.

84 KRP 3429 MO—*Mailed Postpaid.* $5 Down.....Cash $49.95

JIG SAW FILES, BLADES, COUPLING KIT 45c TO 5.95

[2] JIGSAW FILES. Fit (1). ¼-in. diam. shank. Contain shapes most normally used for shop work. Include 1 each: triangular, round, square, half-round, pillar, crochet (see profiles of each above). Use in lower chuck of jig saw.

84 KRP 3118—*Mailed Postpaid*.....Set of 6 $5.95

[3] JIGSAW BLADES. Fit (1), Powr-Kraft and Beaver Jig Saws. Oil-hardened and tempered steel. Blades are 5 in. long with plain ends. *Mailed Postpaid.*

Use For	Cat. No.	Thick	Width	Teeth Per In.	Pkg. of 6
Composition board	84 KRP 3110	.012 in.	.023 in.	20	45c
Wood, hard rubber	84 KRP 3111	.010 in.	.070 in.	14	45c
Plastics, bone	84 KRP 3112	.020 in.	.070 in.	7	45c
Wood, plastics, bone	84 KRP 3113	.010 in.	.040 in.	18	45c
Alum., copper, mild steel	84 KRP 3114	.020 in.	.110 in.	20	45c
Metals, wood, bone	84 KRP 3115	.020 in.	.110 in.	15	45c
Alum., copper, mild steel	84 KRP 3116	.028 in.	.250 in.	20	45c
Soft or hard Presdwood	84 KRP 3117	.028 in.	.250 in.	7	45c

[4] POWER-MOUNT COUPLING KIT. Provides for quick, easy addition of Magna Jointer and Jig Saw Attachments (listed above) to Shopsmith Mark 5 auxiliary spindles. Includes flexible coupling and four hubs.

84 KRP 3462—*Mailed Postpaid*.....Complete Kit $4.95

MAGNA 4-INCH JOINTER ATTACHMENT 49.95

[5] Mounts on Shopsmith Mark 5 quickly and easily with Power-Mount Coupling Kit (4) at left below; also fits former Shopsmith Model 10 ER with Jointer Mounting Kit listed under (13) below. *Guaranteed for one year. Heavy cast-iron construction reduces vibration and assures smooth, accurate operation. Three high-speed steel knives are individually adjustable with Allen wrench for quick, accurate setting to fixed out-feed table. Precision-ground blades will retain their keen cutting edges longer . . . eliminates need of constant resharpening.

Maximum width of cut, 4 in. Cutter head runs on two lubricated-for-life ball bearings. Extra-long 28-in. table for bigger capacity. Infeed table has 2⅛-in. rabbeting ledge for cut up to ⅜ in. Maximum depth of cut, single pass over cutter head ⅜ in. Rigid 21¾-in. fence tilts to 45°; has adjustable stops at most-used angles. Fence position secured tightly with hand lever. Two holes drilled in fence permit attaching wood facings when jointing excessively wide or very long stock. Knob with indicator adjusts infeed table for depth of cut. Spring tension safety guard also adjustable. . . can be used on both sides of fence for jointing or rabbeting.

84 KRP 3449 MO—*Mailed Postpaid.* $5 Down.....Cash $49.95

MAGNA SPRAYER ATTACHMENT 49.95

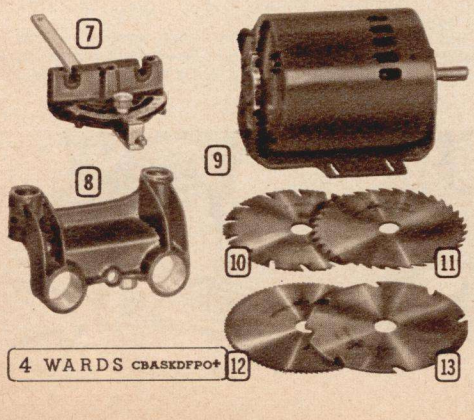
[6] You can complete the entire job from building to painting, with one basic power tool—your Shopsmith. Diaphragm-type sprayer attaches quickly to Shopsmith Mark 5 spindle with coupling (included). Compressor displaces 4.0 cu. ft. of air. At 1750 RPM it delivers 2.4 cu. ft. air per minute at 30 lbs. pressure. *Guaranteed for one year.

Equipped with one 5-foot, one 10-foot hose with special coupling which permits insertion of up to 100 feet of garden hose—permits you to use sprayer outdoors. Outfit includes compressor, bleeder-type dual-purpose gun with one-quart container, separate internal and external mix spray heads. Also with dusting nozzle which enables you to utilize compressed air for other operations and tire inflater which fits any standard air valve.

84 KRP 3472 MB—*Mailed Postpaid.* Only $5 Down.....Cash $49.95

MAGNA JIG SAW, JOINTER AND SPRAYER ABOVE ARE ALSO AVAILABLE AS BELT DRIVEN SINGLE-PURPOSE TOOLS. FOR COMPLETE DESCRIPTION SEE PAGE 8.

*GUARANTEED ONE YEAR: Wards guarantee all Magna and Shopsmith tools and accessories to be free from defects in workmanship or materials, and will repair or replace any defective parts within one year from date of purchase. For details of Wards Monthly Payment Plan, see Page 32.



ACCESSORIES TO MAKE YOUR MODEL 10 ER SHOPSMITH MORE VERSATILE

Accessories listed below fit original model 10 ER Shopsmith only. Items with Catalog No. ending in "K" or "KO" mailed promptly Postpaid from Factories near Cleveland, Ohio or Oakland, Calif.

[7] MITER GAUGE. Can use with Safety Grip (27), Page 7 on Shopsmith 10 ER. Auto-stops at 45°, 90° and 45° for most used angles. Taper lock set screw in bar locks gauge in any position. Nylon inserts.

84 KRP 2995—*Mailed Postpaid from Stock.* $6.95

[8] POWER MOUNT ADAPTER. To mount Magna Sprayer or Jig Saw on Shopsmith 10 ER.

84 KRP 3375—*Mailed Postpaid from Stock.* $6.95

[9] ¾-HP SHOPSMITH MOTOR. 1725 RPM capacitor type. 110–120/220-240 volts, 60 cycle AC. ⅝-in. diam. shaft. Prelubricated ball bearings insure dependable service. *Postpaid.*

84 KRP 3144 KO—$4.50 Down....Cash $44.50

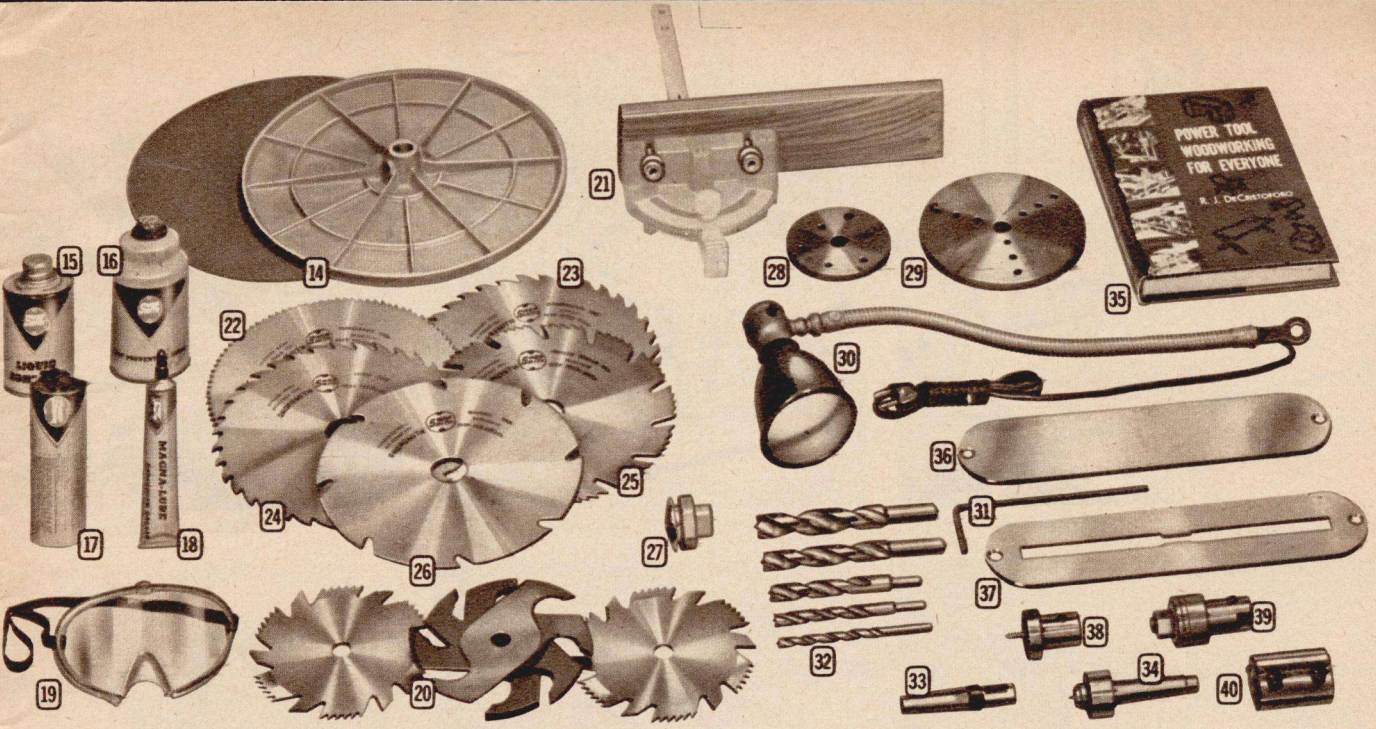
[10] TO [13] SHOPSMITH 8-IN. SAW BLADES. ⅝-in. arbor hole. *Mailed Postpaid.*

(10) 84 KRP 3122 K—Combination.....$4.45
(11) 84 KRP 3121 K—Rip..... 2.65
(12) 84 KRP 3120 K—Crosscut..... 2.65
(13) 84 KRP 3105 K—8-tooth..... 2.65

84 KRP 3106 K—All-Purpose (not shown—same as furnished with Shopsmith 10 ER).....$2.65

SHOPSMITH JOINTER MOUNTING KIT. (Not shown). Required to attach jointer (5) to former model 10 ER Shopsmith. With headrest, belt, 4-step motor pulley. 84 KRP 3382 Jointer Pulley shown on Page 8 also required.

84 KRP 3428 K—*Mailed Postpaid*.....$9.95



Shopsmith Accessories Give Added Versatility

SANDING DISCS, ADHESIVES, DADO HEAD

(14) DISC FOR SANDING. 12-in. diam. Precision machined, balanced. Speed work by ordering an extra disc for each grit. Order sandpaper below.
84 KRP 2977—5/8-in. arbor. *Postpaid*....Each $4.95

GARNET SANDPAPER DISCS FOR (14). 12-in. diam. Durable paper backing. For wood sanding. *State grit wanted—fine, medium, coarse or assorted.*
84 KRP 2978—*Postpaid*.....Package of 6 $1.95

(15) LIQUID ADHESIVE. Pressure-sensitive adhesive for sandpaper discs. Brush applicator.
84 KRP 3149—8 fluid oz. *Mailed Postpaid*.....$1.25

(16) RUST PREVENTIVE SPRAY. Protects exposed iron and steel surfaces against rust.
84 KRP 3148—12 fluid oz. *Mailed Postpaid*....$1.45

(17) DISTIC ADHESIVE. Makes application and replacement of sanding discs easy. Stick-type.
84 KRP 2980—Size stick 1 7/8x5 in. *Postpaid*.....75c

(18) MAGNA-LUBE. Special grease for Shopsmith drive sleeve, spindle spline, quill rack teeth.
84 KRP 3101—2 fluid oz. *Mailed Postpaid*.....50c

(19) SAFETY GOGGLES. Permit a wide field of vision while protecting your eyes from dust, grit. Fit comfortably and snugly, even over glasses.
84 KRP 3446—*Mailed Postpaid*.....$2.45

(20) 6-IN. DADO HEAD. Use for dadoing, grooving, rabbeting, tenoning, etc. Maximum width of cut 13/16 in. Includes two outside blades and four chippers. Use with 5/8-in. arbor (39) and with 1-in. table insert 84 KRP 3440 listed under (37).
84 KRP 3126—*Mailed Postpaid*.....$14.95

(21) MITER GAUGE EXTENSION. Provides extra-large miter gauge face. Top-grade hardwood, sealed against moisture. (Miter gauge not included.) Size 9/16 in. thick, 2 7/8 in. high, 12 in. long.
84 KRP 3461—*Mailed Postpaid*.....$1.25

SHOPSMITH COVER. Vinyl plastic. Protects Shopsmith from dirt and grime. Box-end design.
84 KRP 3464—*Mailed Postpaid*.....$5.95

SAW BLADES, SAW ARBOR, FACE-PLATES

(22) 9-IN. CROSSCUT SAW BLADE.* Special tooth design for smooth, fast cutting across grain. Use when great deal of crosscutting is done.
84 KRP 3436—1 1/4-in. arbor hole. *Postpaid*..$3.45

(23) 9-IN. ALL-PURPOSE SAW BLADE.* Rips and crosscuts, eliminates need of blade change for each specific operation. *Mailed Postpaid.*
84 KRP 3434—1 1/4-in. arbor hole.....$3.45

(24) 9-IN. RIP SAW BLADE.* Designed especially for maximum efficiency when ripping.
84 KRP 3437—1 1/4-in. arbor hole. *Postpaid*..$3.45

(25) 9-IN. COMBINATION SAW BLADE.* Rip-cross-cut-miter. Hollow ground blade tapers from teeth to center—less friction, lasts longer without heating up. For fine work and mitering cuts.
84 KRP 3435—1 1/4-in. arbor hole. *Postpaid*..$6.95

(26) 9-IN. 8-TOOTH SAW BLADE.* Rips and cross-cuts with minimum power demand. Cuts cleanly and reduces "kickback".
84 KRP 3438—1 1/4-in. arbor hole. *Postpaid*..$3.45

(27) 1 1/4-IN. SAW ARBOR.* Required for use with Shopsmith 9-in. saw blades. An arbor on each saw blade simplifies blade changing.
84 KRP 3433—*Mailed Postpaid*.....$1.95

(28) (29) FACE PLATES. Cast iron. Use for turning bowls, lamp bases and other workpieces which cannot be supported between centers.
(28) 84 KRP 2982—3 3/4-in. diam. *Postpaid*...$1.95
(29) 84 KRP 2983—6-in. diam. *Postpaid*..... 2.75

(30) ADJUSTABLE LAMP ATTACHMENT. Attaches easily to jigsaw (1) on opposite page, or Shopsmith. Provides illumination directly on workpiece. Handy on-off switch located at lamp base. Includes cord and plug.
84 KRP 3463—*Mailed Postpaid*.....$5.95

(31) EXTRA-LONG ALLEN WRENCHES. Specially made for Shopsmith. These wrenches fit all set screws used on Shopsmith and Shopsmith accessories. *State size. Mailed Postpaid.*
84 KRP 3142—1/8, 5/32, 3/16-in. sizes.....Each 20c

AUGER BITS, TABLE INSERTS, JOINTER-CUTTER

(32) 5-PC. AUGER BIT SET. Fits Shopsmith chuck. Best type bits for power drilling in soft and hard woods—especially large diameter holes. Set includes 5 bits: 1/4, 3/8, 1/2, 5/8, and 3/4 in.
84 KRP 3107—*Postpaid*.....Set of 5 $6.95

(33) TAILSTOCK CHUCK ARBOR. Holds Jacobs chuck in Shopsmith tailstock. No. 2 Morse Taper one end, 5/8-in. spindle with tapered flat other end.
84 KRP 3132—*Mailed Postpaid*.....$1.25

(34) TAILSTOCK LIVE CUP CENTER. Ball bearing action. Mounted 60° tip turns with workpiece. Eliminates need for retightening because of "burning out." No. 2 Morse Taper shank.
84 KRP 3109—*Mailed Postpaid*.....$3.25

(35) POWER TOOL WOODWORKING FOR EVERYONE. By R. J. DeCristoforo. Learn the correct method to use and operate Shopsmith. 450 illustrations demonstrate each step. 292 pages.
53 KRP 1103X—*Mailed Postpaid*.....$4.95

(36) (37) TABLE INSERTS.* Sturdy cast-aluminum alloy. Heavily ribbed. *Mailed Postpaid.*
(36) 84 KRP 3442—No slot. (Drill Press).....$1.25
(37) 84 KRP 3441—1/2-in. saw slot..... 1.25
84 KRP 3440—1-in. dado or molding head slot. 1.25

(38) SCREW CENTER. Holds small workpieces for hollowing or facing operations. Screw is replaceable with any No. 14 wood screw.
84 KRP 2990—*Mailed Postpaid*.....$1.25

(39) ARBORS. Includes special keyed washer to prevent loosening. Never use any other arbor for mounting attachments on outboard spindle.
84 KRP 2998—For 1/2-in. bore access. *Postpaid*.. $1.95
84 KRP 2999—For 5/8-in. bore access. *Postpaid*.. 1.95

(40) JOINTER-CUTTER. For jointing stock up to 2 1/2 inches thick; 2-in. diameter. Use with jointer and shaper fence (84 KRP 3425 on Page 7). Three tool steel cutter blades are removable for sharpening and adjustment. Fits on spindle—use in either horizontal or vertical position.
84 KRP 3453—*Mailed Postpaid*.....$9.95

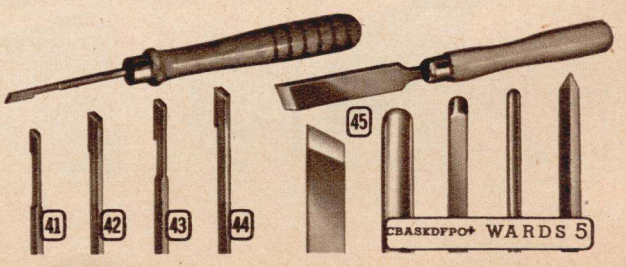
*Items on this Page Marked with Asterisk (*) Fit Shopsmith Mark 5 only. All others Fit Either Old 10 er or Shopsmith Mark 5.

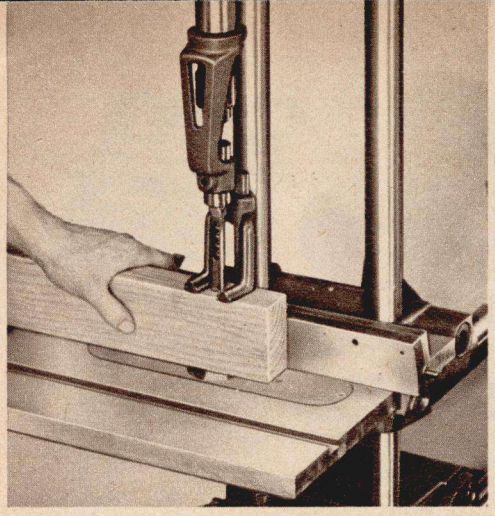
ALLOY STEEL AND CARBIDE-TIPPED CHISELS AND SETS 3.95 TO 14.95

(41) TO (44) CARBIDE-TIPPED TURNING CHISELS. Razor-sharp. For free hand turning of soft metal, plastic, wood. *Postpaid.*
(41) 84 KRP 2087—1/8-in. round nose....$3.95
(42) 84 KRP 2088—1/4-in. round nose.... 3.95
(43) 84 KRP 2085—1/8-in. square nose... 3.95
(44) 84 KRP 2086—1/4-in. square nose... 3.95

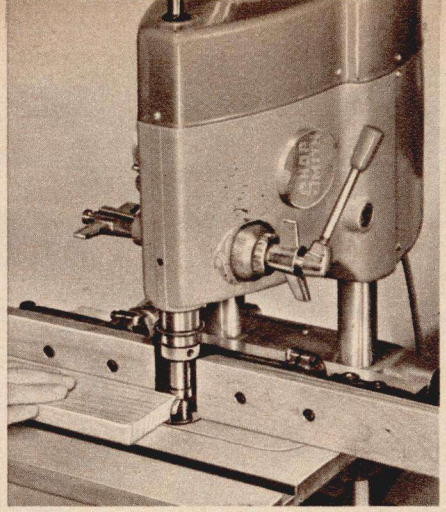
4-PIECE CHISEL SET. One of each above.
84 KRP 2089—*Postpaid*.....Set of 4 $14.95

(45) LATHE CHISEL SET. Alloy steel. Special selection of chisels most commonly used by skilled wood turners. Will handle all standard lathe operations. Set includes one each of following: 1-inch skew; 1/4-inch gouge; 3/4-inch gouge; 1/2-inch round nose and 1/2-inch parting tool. *Mailed Postpaid.*
84 KRP 3131.....Set of 5 $8.95

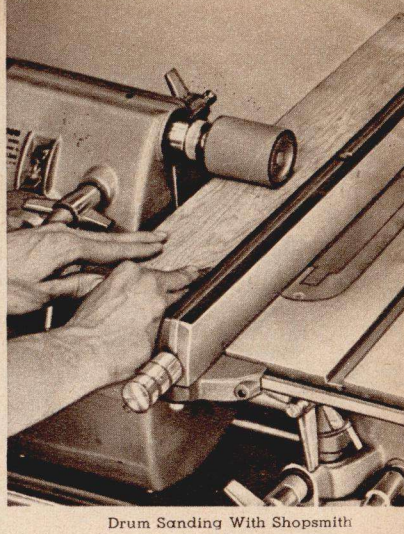




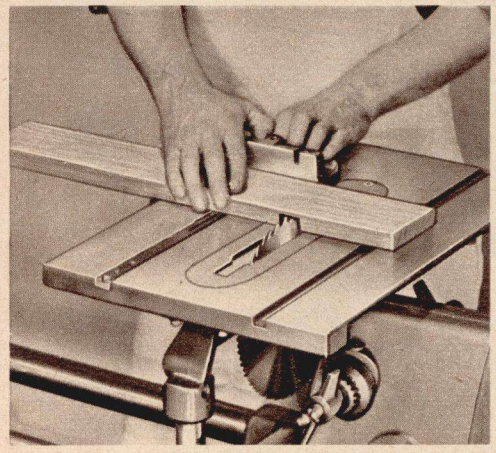
Mortising With Shopsmith



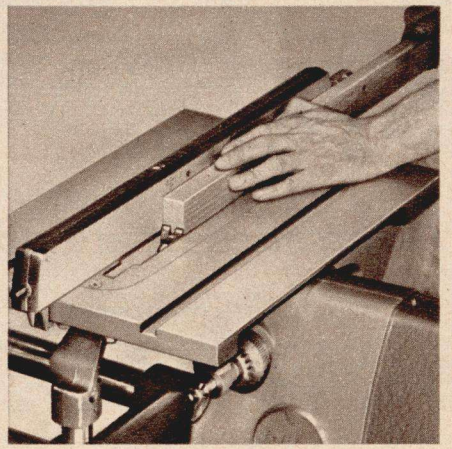
Shaping With Shopsmith



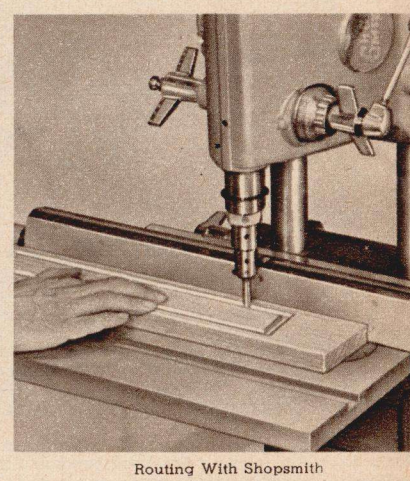
Drum Sanding With Shopsmith



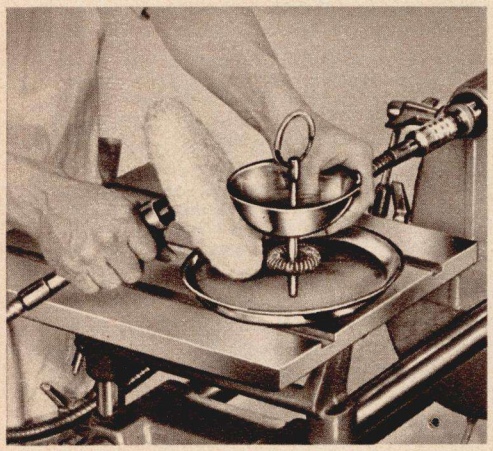
Dadoing With Magna Dado



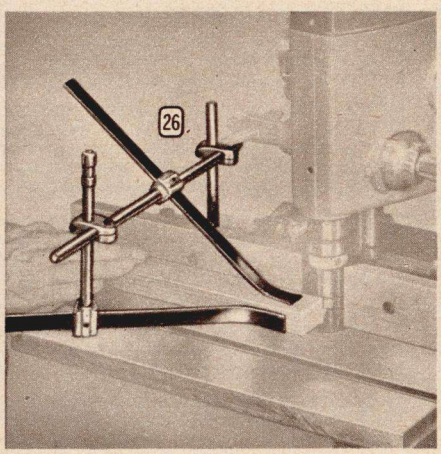
Molding With Shopsmith



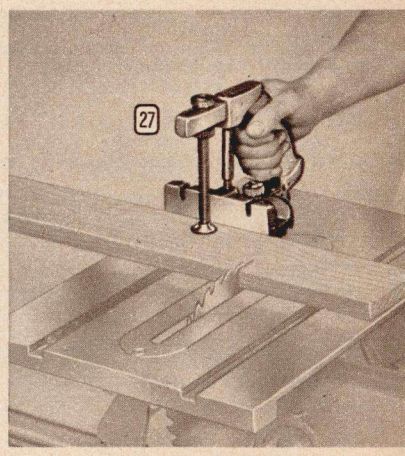
Routing With Shopsmith



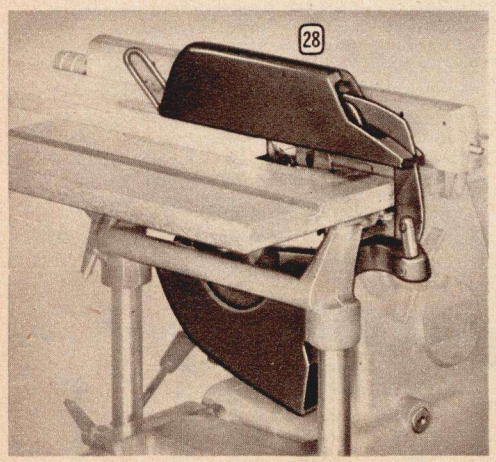
Flexible Shaft In Use



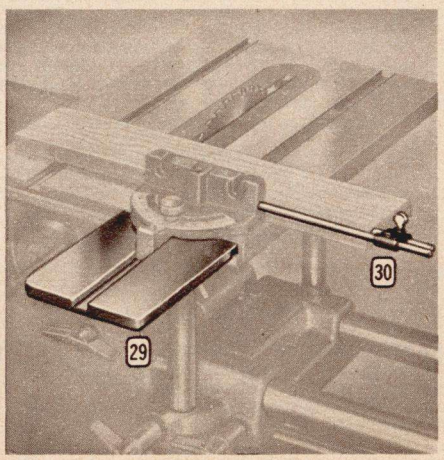
Universal Hold Down Set



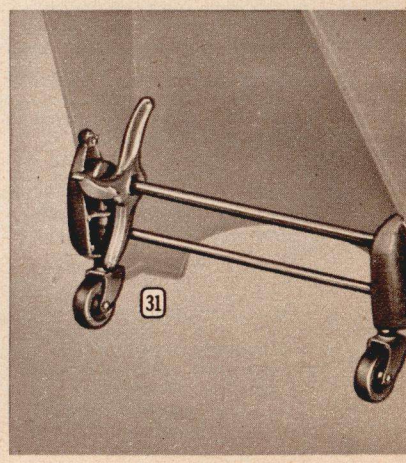
Miter Gauge Safety Grip



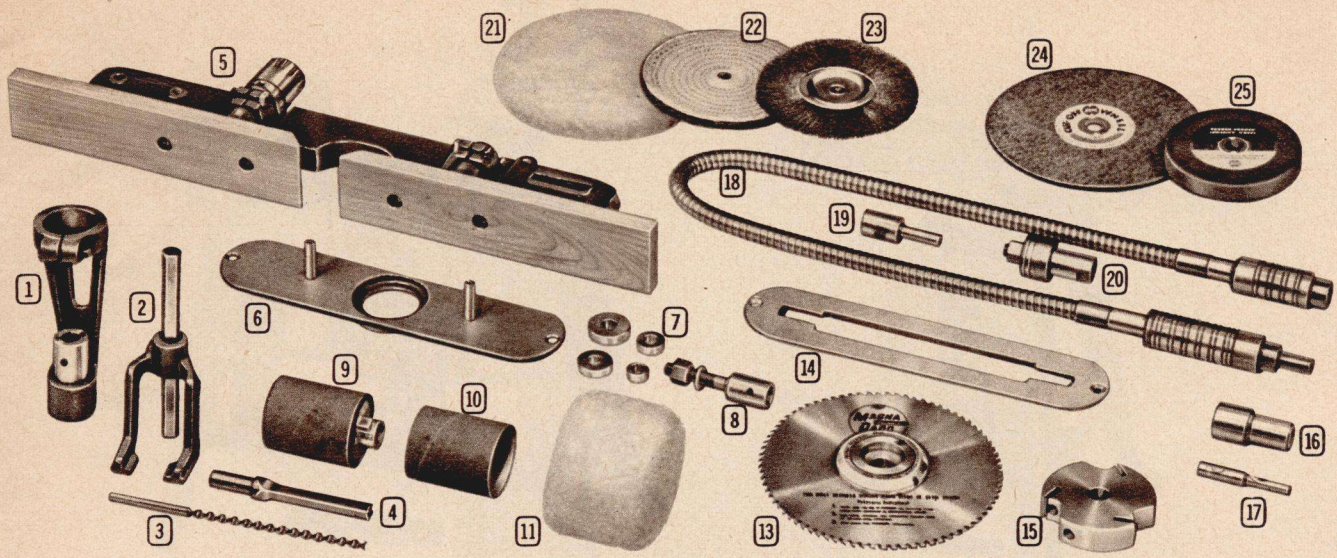
Saw Guard Fits Over and Under Table



Front Table Extension and Stop Rods



Retractable Casters



Accessories Make Shopsmith Even More Useful

1 TO 4 MORTISING ACCESSORIES. See illustration on opposite page. Eliminates tedious hand work when forming mortise and tenon joints and other joints requiring a square cavity.

(1) MORTISING ATTACHMENT. Guides chisel and bit for cutting accurate square holes. Machined cast iron. Use on horizontal or vertical drill press.
84 KRP 3450—*Mailed Postpaid*.....3.95

(2) MORTISING HOLD-DOWN. Adjusts for varying thicknesses. Holds work to table securely. Cast iron.
84 KRP 3451—*Mailed Postpaid*.....2.45

(3) MORTISING BITS. Tempered steel. Use with mortising chisels below. *State 1/4, 5/16, 3/8 or 1/2-in. size.*
84 KRP 3135—*Mailed Postpaid*.....Each 2.45

(4) MORTISING CHISELS. Use with bits above for cutting square holes for mortise and tenon joints. Tempered steel. *State 1/4, 5/16, 3/8 or 1/2-in. size.*
84 KRP 3134—*Mailed Postpaid*.....Each 3.50

5 TO 8 SHAPING ACCESSORIES. See illustration showing operation on opposite page. Order shaper cutters 84 KRP 3138 separately, Page 25.

(5) SHAPER FENCE. Controls depth of cut for shaping straight-edged boards. Locks to table. Infeed and outfeed fences adjust for depth of cut.
84 KRP 3425—*Mailed Postpaid*.....11.95

(6) TABLE INSERT.* Cast aluminum. For shaping curved work against collars. Removable fulcrum pins.
84 KRP 3443—*Mailed Postpaid*.....1.95

(7) SHAPER COLLARS. For controlled depth of cut on curved surfaces. Fit 1/2-in. shaper adapter. Set of four—25/32 to 1 1/2-in. outside diameter.
84 KRP 3139—*Mailed Postpaid*.....Set of four 1.45

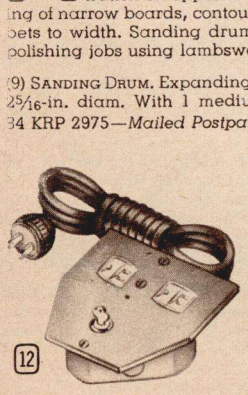
(8) SHAPER ADAPTER ASSEMBLY. Use for mounting of 3-lip shaper cutters. For cutters with 1/2-in. bore.
84 KRP 3460—*Mailed Postpaid*.....1.25

9 TO 11 DRUM SANDING ACCESSORIES. See illustration on opposite page. For surface sanding of narrow boards, contour sanding, sanding rabbets to width. Sanding drum is adaptable for small polishing jobs using lambswool bonnet.

(9) SANDING DRUM. Expanding rubber type. 3 in. wide, 2 5/16-in. diam. With 1 medium grit sanding sleeve.
84 KRP 2975—*Mailed Postpaid*.....2.95

(10) SANDING SLEEVES. Fine, Medium, Coarse. *State grit.* Pkg. of 6.
84 KRP 3133—*Ppd.* 1.25

(11) LAMBSWOOL POLISHING BONNET. *Pstpd.*
84 KRP 3129.....1.50



12 KEY SWITCH AND OUTLET BOX.* Has lock and key, extra outlet. 10-ft. cord. *Postpaid.*
84 KRP 3432..... 7.95

13 MAGNA DADO ASSEMBLY. See illustration on opposite page. 8-in. diam. geared precision model. Wobble type. Complete unit—no blades and chippers to assemble. One quick adjustment gives desired width of cut. Gear synchronized one-piece unit for grooving, dadoing, notching, cross cutting, ripping. Cuts grooves 5/32 to 7/8 in. wide . . . infinite settings possible. Blade is 1/8 in. thick. Can also be used as a rip or crosscut blade. Cuts to 2 in. deep. Fits 5/8 or 3/4-in. diam. arbors.
84 KRP 3300—*Mailed Postpaid*.....14.95

14 TABLE INSERT.* Cast aluminum. 1-in. dado slot.
84 KRP 3440—*Mailed Postpaid*.....1.25

15 SHOPSMITH MOLDING CUTTER HEAD. Converts Shopsmith to an efficient shaper. You can produce and shape an infinite number of designs with a small selection of knives—just by varying the cutting pattern. 3 5/8-in. diam. by 7/8-in. wide aluminum head holds set of 3 knives (one shape). Use with insert (14) above. Order knives separately on Page 12.
84 KRP 3103—*Mailed Postpaid*.....5.75

16 17 ROUTING ACCESSORIES. See illustration on opposite page. Add to versatility of Shopsmith when used in drill press position.

(16) ROUTER CHUCK. For routing and other operations involving added side thrust—carving, round end mortising, dowelling, etc. *Postpaid.*
84 KRP 3457—Takes 1/2-in. diam shanks...1.65

(17) ROUTER BITS. 1/2-in. diam. shanks. Use with router chuck for routing, dadoing, grooving, etc. *State 1/4, 5/16, 3/8 or 1/2-in. cutting size.*
84 KRP 3136—*Mailed Postpaid*.....Each 1.65

18 TO 23 FLEXIBLE SHAFT AND ACCESSORIES. See illustration on opposite page. Made especially for Shopsmith. For sanding, buffing, polishing, etc., with accessories below.

(18) FLEXIBLE SHAFT. Fits Shopsmith 5/8-in. spindle. 3/8-in. core, 50 in. long. All steel—complete ball bearing construction. Use with (20).
84 KRP 3140—*Mailed Postpaid*.....15.95

(19) FLEXIBLE SHAFT ADAPTER. Adapts any flex shaft with 1/2-in. bore motor coupling to fit Shopsmith spindle. *Not required with* (18).
84 KRP 2992—*Mailed Postpaid*.....95c

(20) ARBOR ASSEMBLY. Fits flex shaft or Shopsmith spindle. Holds grinding wheels. etc. *Postpaid.*
84 KRP 2998—Takes 1/2-in. bore accessories...1.95
84 KRP 2999—Takes 5/8-in. bore accessories..1.95

(21) LAMBSWOOL PAD. Fits 6-in. face plate.
84 KRP 3128—*Mailed Postpaid*.....1.50

(22) CLOTH BUFFING WHEEL. Fits 1/2-in. arbor.
84 KRP 3127—6-in. diam. *Postpaid*.....75c

(23) WIRE BRUSH WHEELS. For removing paint, rust, etc. Durable solid metal reinforced centers. 6-in. diameter. Use with 1/2-in. arbor.
84 KRP 3124—Fine Wire. *Postpaid*.....1.75
84 KRP 3125—Coarse Wire. *Postpaid*.....1.75

24 FLEXIBLE CUT-OFF WHEEL. Laminated linen impregnated with cutting abrasive. 8-in. diam., 5/8-in. arbor hole. For cutting all metals.
84 KRP 3123—*Mailed Postpaid*.....3.45

25 RUBBER-BONDED ABRASIVE WHEEL. 5-in. diam., 3/4 in. thick, 5/8-in. arbor hole. For sharpening and honing plane blades, chisels, etc.
84 KRP 3448—*Mailed Postpaid*.....4.95

26 UNIVERSAL HOLD-DOWN SET. Mounts on miter gauge, rip fence or shaper fence. Holds work securely against fence and table. Prevents chatter by holding work firmly when shaping, routing, sawing, etc. Holds odd shaped pieces firmly for cutting. Long mounting bars allow maximum adjustment in thickness and width of work. Can be mounted on any side of Shopsmith table in horizontal or vertical position.
84 KRP 3426—*Mailed Postpaid*.....9.95

27 MITER GAUGE SAFETY GRIP.* Simply grasp pistol grip firmly and it clamps your workpiece securely against table and miter gauge. Maximum accuracy is assured, and it positions your hands away from saw blade. Prevents workpiece from creeping. Safety Grip will also fit on old Shopsmith 10 ER if used with miter gauge 84 KRP 2995, listed on Page 4.
84 KRP 3444—*Mailed Postpaid*.....7.95

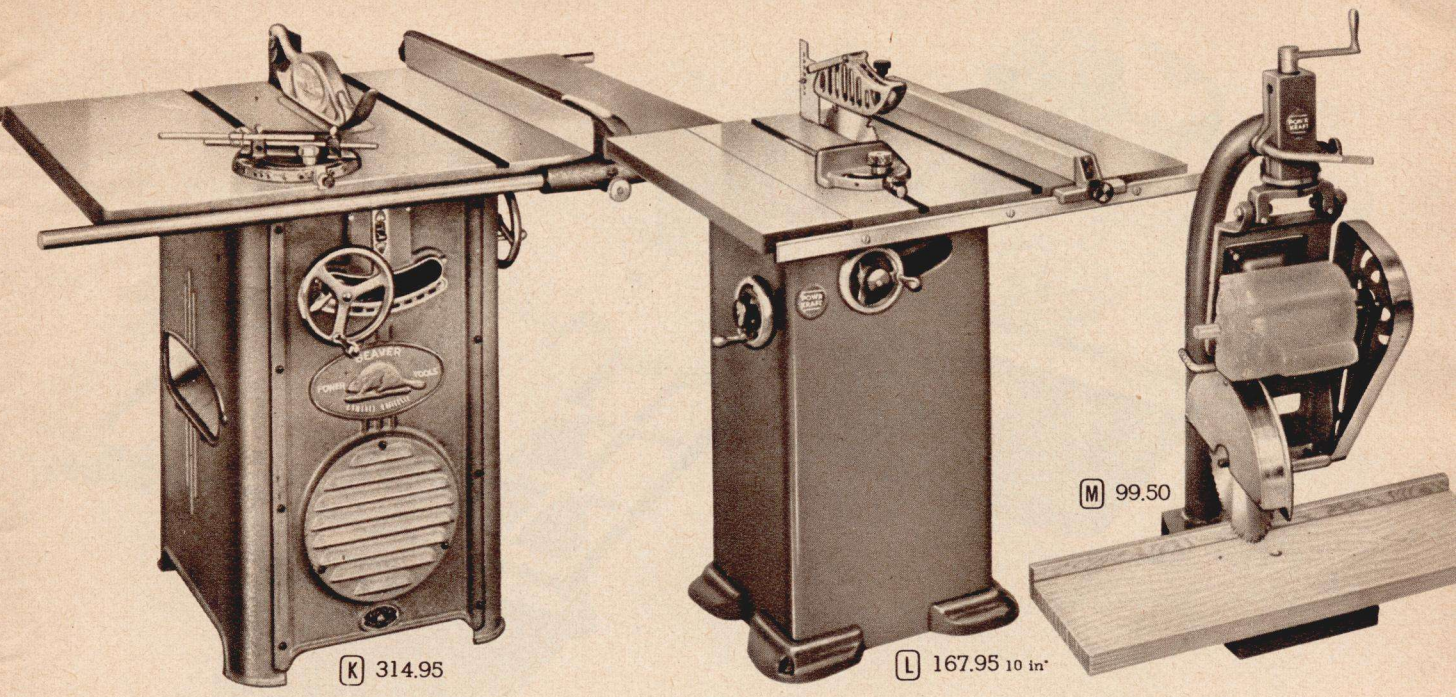
28 SAW GUARD.* Covers both upper and lower portions of saw blade. Upper guard adjusts automatically to thickness of stock. Lower guard channels sawdust away from operator. Anti-kickback fingers are rubber-covered to grip stock firmly without marring surface. With splitter.
84 KRP 3445—*Mailed Postpaid*.....13.95

29 FRONT TABLE EXTENSION.* Attaches on front of saw table or extension table. Increases working area in front of saw blade to 14 in. Gives added support to extra-wide workpieces.
84 KRP 3439—*Mailed Postpaid*.....4.95

30 MITER GAUGE STOP RODS. Use with miter gauge as a jig for crosscutting workpieces to same length. Adjustable from 0 to 18 in. Can be used on either side of miter gauge.
84 KRP 2988—*Mailed Postpaid*.....1.45

31 RETRACTABLE CASTERS.* Roll your Shopsmith easily to any job or out of the way for storage. A touch of your foot raises end of the bench 1/2 in. off floor for rolling, another touch and bench rests solidly on floor. With retractable casters your Shopsmith takes even less space. Steel swivel casters. Easily installed. Bolts incl.
84 KRP 3431M—*Mailed Postpaid*.....11.95

*IMPORTANT NOTICE: Accessories on this page with asterisk (*) will fit new Shopsmith Mark 5 only. Accessories without asterisk will fit both original Shopsmith 10ER and the new Shopsmith Mark 5. See other Shopsmith accessories on Pages 4 and 5.



Big Capacity Floor Model, Swing and Radial Saws

BEAVER 10-IN. TILTING ARBOR FLOOR SAW

(K) PROFESSIONAL QUALITY. Nationally-known Beaver 10-in. heavy-duty tilting arbor floor model saw. Large capacity—cuts to 3½ in. at vertical and to 2½ in. at 45°. Will crosscut, rip, miter, bevel, cut-off, double-miter, angle rip and dado. Precision built for accuracy; massive heavy-duty construction for years of hard use. Made in Canada.

Arbor runs on two grease-sealed ball bearings; may be raised and lowered or tilted to any angle up to 45° by means of two large convenient hand wheels. Motor (not included) mounts on inside of base. Blade tilts to 45°; table stays level. Front panel has easy-to-read saw blade tilt scale and on-off switch. Built in chute carries sawdust outside opening, completely sealing off motor from sawdust. Cast semi-steel table, 28½x44 in., ground for accuracy, ribbed for strength, offset to permit ripping to center of 48-in. panel. Height from floor to table is 34 in. Rip fence has micro-adjustment for extreme accuracy, locks front and rear simultaneously. Miter gauge may be used on either side of the blade, graduated from 0° to 60° both ways. Equipped with 10-in. combination saw blade, guard, splitter with anti-kick back and necessary belts and pulleys. Gray wrinkle finish. See "Shipping Notice" below. Ship. wt. 535 lbs.

84 KR 3484 F—Only $31.50 Down.....Cash $314.95

2-HP REPULSION-INDUCTION MOTOR. For saw above. 1725 RPM. Ball Bearings. See Page 27 for details.

83 KR 4640 R—Shipped from Stock. Wt. 125 lbs.$112.00

POWR-KRAFT FLOOR SAWS 167.95 10 in.

(L) PRODUCTION TILTING ARBOR MODELS. Will cross-cut, rip, miter, bevel, cut-off, double-miter, angle rip and dado. Blade, ball bearing arbor and motor tilt up to 45° as a single unit on cast-iron trunnions—table remains level. Hand wheels control depth of cut and tilt. Bracket to fit ½ to 2-HP motors. Miter gauge adjusts to 60°, has stops at 90° and 45°. With combination crosscut-rip-miter blade. Height to table 34¼ in. See "Shipping Notice" at bottom of page.

10-IN. MODEL. Cuts to depth of 2⅞ in. vertically; to 2¼ in. at 45°. Cast-iron main table 20x27 in.; with extensions 32x27 in. Table extends 12⅜ in. in front of blade. ⅝-in. arbor. 2¼-in. "V" saw pulley, 2½-in. motor pulley and 42-in. "V" belt.

84 KR 2272 F—Wt. 250 lbs. $17 Dn. Cash $167.95

1-HP 3450 RPM CAPACITOR MOTOR. See Page 26.

83 KR 4598 MB—Ship. wt. 34 lbs.....$42.95

12-IN. MODEL. Cuts to depth of 4¼ in. vertically, to 2¾ in. at 45°. 1-pc. smooth ground cast aluminum table, 31x34 in., extends 14½ in. in front of blade. ¾-in. diam. arbor with double 2¼-in. "V" saw pulley, double 2½-in. (¾-in. bore) motor pulley, two 48-in. "V" belts. Ship. wt. 265 lbs.

84 KR 2277 F—$23 Down.....Cash $229.95

1½-HP 3450 RPM CAPACITOR MOTOR. See Pg. 26.

83 KR 4599 MO—Ship. wt. 56 lbs..... $58.85

POWR-KRAFT SWING SAW 99.50

(M) 10-IN. PRODUCTION MODEL. For contractors, carpenters, lumber-yards, etc. For cut-off, mitering, grooving, ripping, dadoing. Shaping possible in vertical position. New Departure grease-sealed ball bearings for smoother, quieter operation and longer life. Easy to operate. Pull saw forward to cut . . . spring action returns it to original position. Maximum depth of cut 2½x12 in. Index grooved at 90° cut off, 45° right and left and 90° rip positions. Positive lock holds firmly.

Vertical depth adjustable to 4 in. by screw handle at top of saw. ⅝-in. arbor runs on New Departure ball bearings. 10-in. combination crosscut-rip-miter blade, 2½-in. saw pulley, 2½-in. motor pulley (⅝-in. bore) and 36-in. "V" belt. Lightweight cast-aluminum removable belt and blade guard. Strong rigid, tubular steel column. Wood work table mounted on steel base.

Work table 34¾x11½x1½ in.; steel base size 12 1/16x21½ in. Height 45½ in. Use 6, 8, or 10 in. by ⅝-in. bore dado heads listed on Page 12. Shaper heads and knives also listed on Page 12. See "Shipping Notice" at bottom of page.

84 KR 2279 F—Wt. 115 lbs.$10 Down..Cash $99.50

1-HP, 3450 RPM BALL BEARING MOTOR for above Saw. See Page 26 for complete description. Motor shipped from Stock. Ship. wt. 34 lbs.

83 KR 4598 MB—$4.50 Down.....Cash $42.95

BENCH SAWS ON PAGES 10 AND 11; SAW BLADES AND SAW ACCESSORIES ON PAGES 12 AND 13; ONLY 10% DOWN ON MONTHLY TERMS, SEE PAGE 32.

POWR-KRAFT BALL BEARING RADIAL SAW 264.95

(N) 12-INCH PRODUCTION MODEL. Wide range of uses . . . does ripping, beveling, compound mitering, crosscutting, bevel ripping, dadoing, mitering, shaping, etc. Easily handles joists, rafters, studding, bracing, concrete forms, foundations, scaffolding, dados for beams, sills, bins, shelves, partitions, platforms, crating, etc. Saw pulls through work, lumber remains stationary as the blade cuts through it.

Cuts 4⅝ in. deep through 22 in. in vertical position and 3 in. deep through 14 in. at 45 degrees on compound cuts. Travel of arm is 29 in. Rips to center of 58-in. material. Cut-off capacity 4½ in. by 22 in. or 1 in. by 27 in. Swings 45 degrees in either direction . . . tilts to 90 degrees for shaping, locks firmly in place. Blade raises and lowers 6 in. All operating adjustments are easily made from front of saw. Radial arm does not interfere with saw operation.

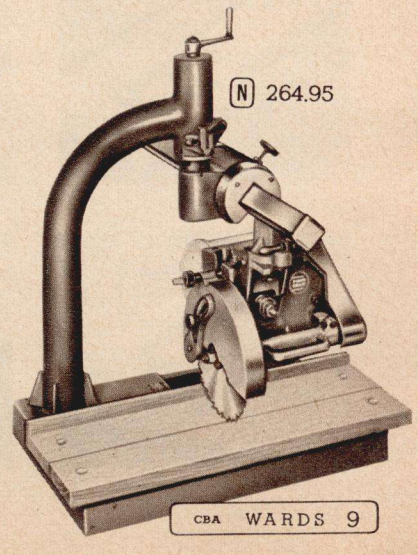
Radial arm is hardened and tempered, precision ground square steel tubing. Runs on eight grease-sealed ball bearings. Steel column. Angle-iron platform with 1½x11½x34¾ in. adjustable wood table. ¾-in. saw arbor in ball bearing housing. Strong, lightweight cast-aluminum motor base, 10⅛ by 9½ in. Size overall 32 in. wide, 44 in. high.

Includes: 12-in. combination crosscut-rip-miter saw blade, double 2½-in. diam. by ¾-in. arbor motor pulley, double 2¼-in. diam. saw pulley, two 25-in. "V" belts. For Dado blades see Page 12. See "Shipping Notice" below. Ship. wt. 275 lbs.

84 KR 2278 F—$26.50 Down.....Cash $264.95

1½-HP, 3450 RPM BALL BEARING MOTOR FOR ABOVE. (See Page 26 for description.) Ship. wt. 56 lbs.

83 KR 4599 MO—$6 Down..... Cash $58.85



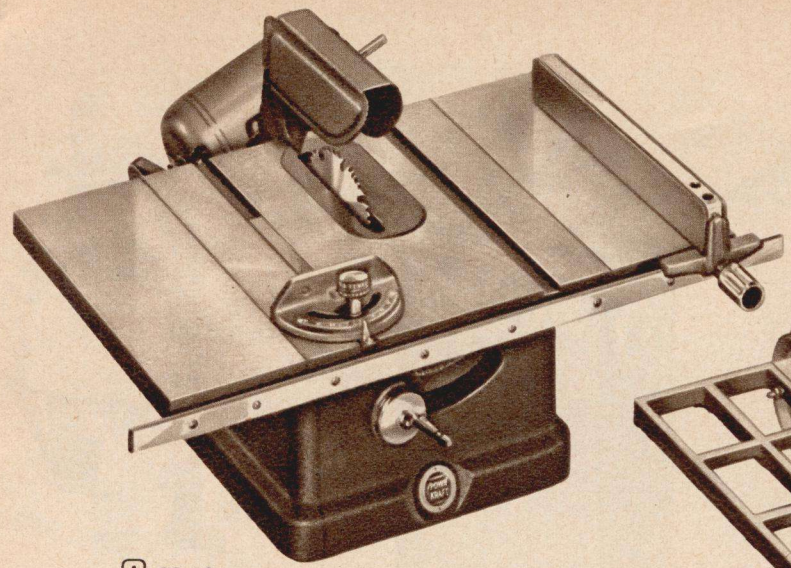
RADIAL SAW STAND 13.65

(P) Saw stand fits radial saw (N) above only. Heavy sheet metal legs attach to platform of Radial Saw. Height of legs is 29½ inches. Raises saw about 26½ in. See "Shipping Notice" at right.

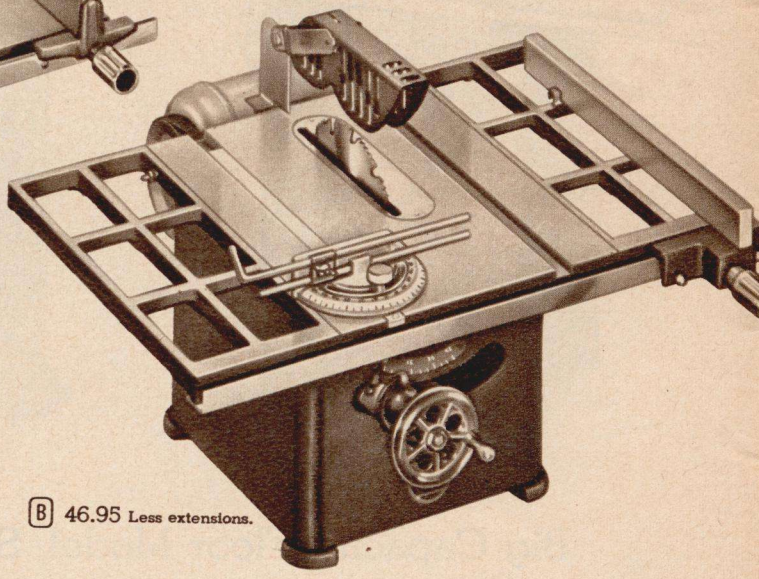
84 KR 2264 KB—Ship. wt. 38 lbs....$13.65

SHIPPING NOTICE

Saw (K) shipped from Factory in Detroit, Mich. Saws (L) (M) and (N) shipped from Factory in Baltimore, Md., Chicago, Ill., or Los Angeles, Calif. Stand (P) shipped from Factory in Los Angeles, Calif. Allow 10 days for shipping time.



Ⓐ 38.50 Less extensions.



Ⓑ 46.95 Less extensions.

Do-It-Yourself Faster and Easier With Powr-Kraft and

POWR-KRAFT HOBBYIST'S SAW 38.50

Ⓐ 8-In. Tilting Arbor Model. Many features of more expensive models. Grease-sealed ball bearings insure long life. Two handwheel controls—one wheel raises or lowers 8-in. diam. blade, controlling depth of cut; other wheel tilts blade and arbor to 45° for angle cuts. Size overall 18x24½x13½ in. See complete specifications at right.

With 8-in. combination crosscut-rip-miter blade, motor bracket, 2-in. diam. "V" machine pulley, guard, splitter. Gray wrinkle finish. Ship. wt. 55 lbs. *Mailable.*

84 KR 3315 MO—Saw only. $4 Dn., Cash $38.50

Table Extensions. For saw (A). Cast iron. Size 6x17¾ in. each. *Mailable.*

84 KR 3316 MB—Ship. wt. 22 lbs. . Pair $10.95

Saw With Table Extensions and ½-HP Motor. (83 KR 4541MB, Page 26), 40-in. "V" belt, 4-in. motor pulley. Ship. wt. 107 lbs.

84 KR 3317 R–*Not Mail.*. $7.50 Dn., Cash $73.25

POWR-KRAFT MEDIUM-DUTY SAW 46.95

Ⓑ 8-In. Tilting Arbor Model. For hobbyists and production workers. Sturdily built with ⅝-in. diam. arbor, larger bearing surfaces. New Departure grease-sealed ball bearings for longer wear. Simplified operation. One handwheel control raises, lowers and tilts 8-in. blade and arbor to 45°. Size 13x24¾x15½ in. See specifications at right.

With 8-in. combination crosscut-rip-miter blade, 4-in. diam. motor pulley (fits ½, ⅝-in. shaft), 1¾-in. diam. machine pulley, 37-in. "V" belt, motor bracket, guard with splitter. *Mailable.* Ship. wt. 56 lbs.

84 KR 3480 MO–Saw only. $5 Dn., Cash $46.95

Cast-Iron Table Extensions. For (B). 6½x17 in. each. Ship. wt. 15 lbs. *Mailable.*

84 KR 3307 M—Extensions only. . . . Pair $11.95

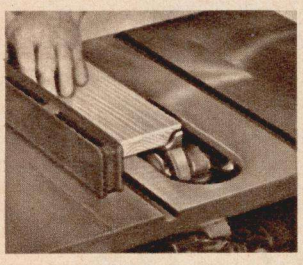
Saw with Table Extensions and ½-HP Motor. (83 KR 4541MB, Page 26). Wt. 99 lbs.

84 KR 3323R–*Not Mail.* $8.50 Down. Cash $81.50

TILTING ARBOR BENCH SAW SPECIFICATIONS

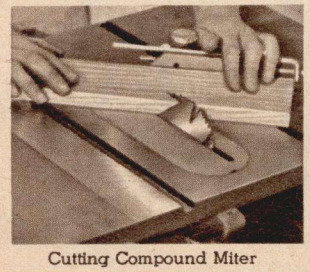
Catalog Number	Ⓐ 84 KR 3315 MO	Ⓑ 84 KR 3480 MO	Ⓒ 84 KR 3475 R	Ⓓ 84 KR 2294 F
Depth of Cut Vertical	2¼ in.	2⅜ in.	2½ in.	2⁷⁄₁₆ in.
Depth of Cut at 45°	1⅝ in.	1⅝ in.	1⅝ in.	1⁷⁄₁₆ in.
Main Table Size	14x17¾ in.	13x17 in.	14³⁄₁₆x18 in.	24x22 in.
Table With Extensions	26x17¾ in.	26x17 in.	26⅜x18 in.	No Extensions
Dist. ahead of Blade	8⅛ in.	7⅜ in.	8⅛ in.	11¾ in.
Bearings	Ball	Ball	Ball	Ball
Arbor Diam.	½ in.	⅝ in.	⅝ in.	⅝ in.
Rip Fence	16 in.	17 in.	16 in.	22½ in.
Base Size, in.	13⅜x15⅝	12¼x13¼	15⅛x15⅛	22½x18½
Dado Insert	3⅝x9¹¹⁄₁₆in.	2⁷⁄₁₆x9⅝ in.	3⅝x9¹¹⁄₁₆in.	3¹¹⁄₁₆x10⅞ in.
Machine Pulley incl.	2-in. diam.	1¾-in. diam.	2½-in. diam.	2½-in. diam.
Rec. Stand	84KR2959MO	84KR2961MO	84KR2959MO	84KR2957K
Rec. Speed	3450 RPM	3900 RPM	3450 RPM	3450 RPM

Bench saw accessories: Molding heads, cutters, dado heads, saw blades, Pgs. 12 and 13; stands, belts, pulleys on Pg. 28.

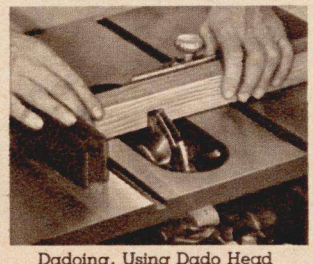


Shaping

Disc Sanding



Cutting Compound Miter



Dadoing, Using Dado Head In Place of Saw Blade

CHOOSING A CIRCULAR BENCH SAW . . . THE BASIC WOODWORKING

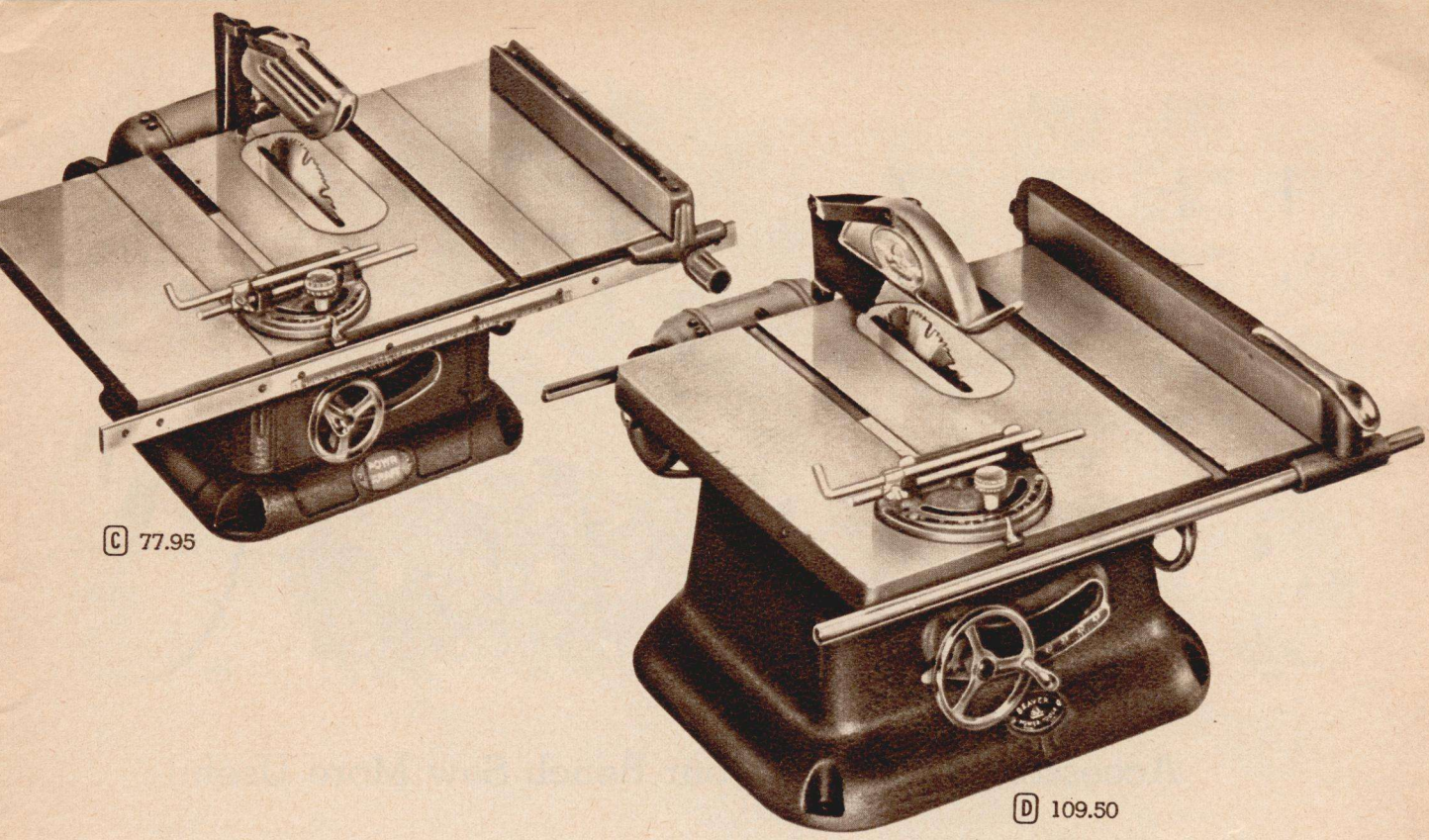
The bench saw fits the classification "all 'round" power tool more closely than does any other single purpose tool. With a bench saw, you can perform more than 75% of all woodworking operations required in cabinet-making. Since it is one of the most useful, it is probably the first power tool you will want to buy.

Its main use is to rip and crosscut lumber to size, but it also may be adapted to bevel, chamfer, taper, rabbet, miter, groove, shape, dado, sand and to make mortise and other joints. Four common operations are shown at left.

There are two kinds of bench saws—Tilting Arbor and Tilting Table types. On tilting arbor saws (A) to (D) above, the table top and work always remain in horizontal position while blade and arbor tilt. For this reason, sawing bevel cuts on a tilting arbor bench saw is easier and faster than using tilting table saw like (E) at right, where table top and work are tilted. However, tilting table saws are equally good for the straight cuts which represent the majority of sawing operations.

The named size of any circular saw is based on the diameter of the saw blade which it will swing. Sizes generally run from 8 in. up to 12 in. With the blade as high as possible, an 8-in. saw will make approximately a 2¼-in. cut; a 10-in. saw an average of about 3 in. In choosing a size, of course, it is important to buy as large a diameter saw as your means permit—as in all probability you will use this tool more often than any other. 10 and 12-in. saws are available usually as floor models, rather than bench models.

Other than size, a choice must be made on the basis of refinements built into the better saws. Those saws having more precise adjustments for changing the height and angle of blade in the table, and for positioning the fence and miter gauge, have greater accuracy and will produce better quality work. A very important feature in bench saws is the type of arbor bearings. Generally, saws classified as light duty are equipped with bronze bearings; medium and heavy-duty saws have dependable grease-sealed (*continued on next page*)



C 77.95

D 109.50

Beaver Tilting Arbor and Tilting Table Circular Bench Saws

POWR-KRAFT HEAVY-DUTY SAW 77.95

C 8-In. Tilting Arbor Model. Easily meets the rigid requirements of production woodworking shops or most exacting hobbyists. Massive heavy-duty construction gives professional performance and exceptional accuracy on every job. Runs quietly and smoothly on ball bearings, grease sealed for protection against dust and dirt. Has two separate operating controls for precision work—one raises and lowers blade, other tilts arbor with 8-in. blade, simultaneously moving motor along saw base. Tilting arbor construction makes bevel cutting easier, faster. Motor mount is part of saw base, not fastened to bench or stand. Extra rigid construction with cast semi-steel table top and solid extensions. Heavy cast-iron base encloses working parts; gives firm, solid support for heavy-duty use. Size overall 31⅞x24x14¾ in. Made in Canada. Gray wrinkle finish. See specifications on opposite page.

With table extensions, 8-in. combination crosscut-rip-miter blade, 4½-in. diam. motor pulley (fits ½ or ⅝-in. diam. motor shaft), 2½-in. diam. machine pulley, clear view saw guard, splitter and non kick-back pawls. Order 38-in. "V" belt separately; see Page 28. *Not Mailable.* Ship. wt. 100 lbs.

84 KR 3475 R—Saw complete with extensions. $8 Down.....Cash $77.95

Saw Complete with Table Extensions and ½-HP Ball Bearing Capacitor Motor. (83 KR 4541MB, Page 26) and 38-in. "V" belt. *Not Mailable.*

84 KR 3313 R—Ship. wt. 129 lbs. $10 Down on Terms.....Cash $99.95

HEAVY-DUTY BEAVER PRODUCTION MODEL SAW 109.50

D 8-In. Tilting Arbor Model. Designed and constructed to meet the most exacting demand of the skilled workman—we believe there is no other bench saw in this price range to match this saw in quality and accuracy. Will absorb plenty of punishment and still maintain high operating efficiency and extreme accuracy. Alloy steel spindle mounted on grease-sealed SKF ball bearings. Two handwheel controls—one raises and lowers blade; other tilts blade and arbor. Table is one-piece rib-reinforced semi-steel casting.

Full 12-in. rip cut on either side of blade. Aluminum insert removable for dadoing. Arbor bracket rides on cast semi-steel machined trunnion attached to underside of table. Bracket fits demountable motor base so motor and arbor swing at same time. Semi-steel rip fence, ground smooth on both sides for use on either side of blade; lever clamp locks both ends at once. Miter gauge graduated to 60° in both directions; has extension stop rods for duplicating cuts. 12-in. miter gauge guide bar. See specifications on opposite page.

Size 29½ in. wide, 27½ in. long, 16⅞ in. high. Gray wrinkle finish. With 8-in. crosscut-rip-miter blade, 5-in. diam. "V" motor pulley (fits ½ or ⅝-in. shaft). Recommended "V" belt, 42 in. (Order motor separately below.) Made in Canada, but shipped from Factory's Detroit Warehouse. Allow one week.

84 KR 2294 F—*Not Mailable.* Ship. wt. 142 lbs. $11 Down.....Cash $109.50

½-HP Ball Bearing Capacitor Motor. For saw (D) above. See Page 26.

83 KR 4541MB—*Mailable.* Ship. wt. 28 lbs. $2.50 Down..... Cash $24.50

TOOL IN MOST SHOPS

(cont. from opposite page) ball bearings for smoother, quieter operation and longer life. Your choice of models will depend on the amount and type of work to be performed. Keep in mind that a ball bearing saw will last longer and give better service than a bronze bearing saw.

Here are 10 important safety rules to observe when operating a bench saw: (1) Keep the saw in perfect working order; blades sharp, perfectly set; (2) Leave no tools or other materials on saw table; (3) Keep floor around saw free from scrap lumber; (4) Check setup of saw carefully before turning on power; don't make adjustments while saw is running; (5) Keep your eyes on job—be alert; (6) Use guards and other safety devices; (7) Roll sleeves above elbows; never wear gloves or tie; (8) Stock must lie flat on table; must have a true edge to be held against fence or miter gauge; (9) Saw blade should not project more than ⅛ in. above stock being cut; (10) Stand slightly to left of saw blade, never in line with it; use a push stick when cutting against the fence.

8-INCH POWR-KRAFT MEDIUM-DUTY TILTING TABLE BENCH SAW 32.95

E Big capacity tilting table saw. 8-in. blade gives extra working capacity. Saws to depth of 2⁷⁄₁₆ in. at vertical; to 1½ in. at 45°. Blade raises or lowers by hand knob. ⅝-in. diam. arbor has self-lubricating bronze bearings.

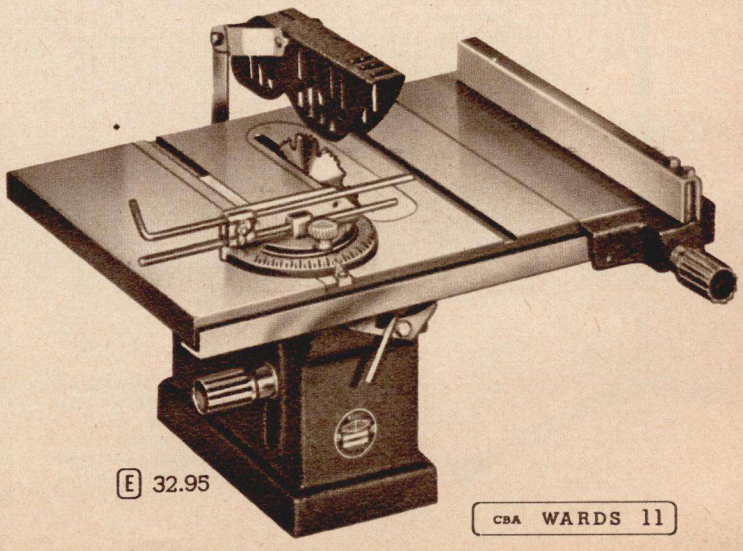
10x14-in. main table; with extensions 20x14 in.—tilts on smooth-riding trunnions. Insert removable for dado work. Miter gauge adjusts to 60°, right or left; extension stop bars allow duplicate cuts of same length. Rip fence locks on front guide rail. Cast-iron base 5¾x10¼ in. Overall 20x20¾x12¾ in.

Equipped with saw guard, combination crosscut-rip-miter blade, splitter, motor mount bracket and machine pulley. Gray finish. Ship. wt. 50 lbs. *Mailable.* $3.50 Down.

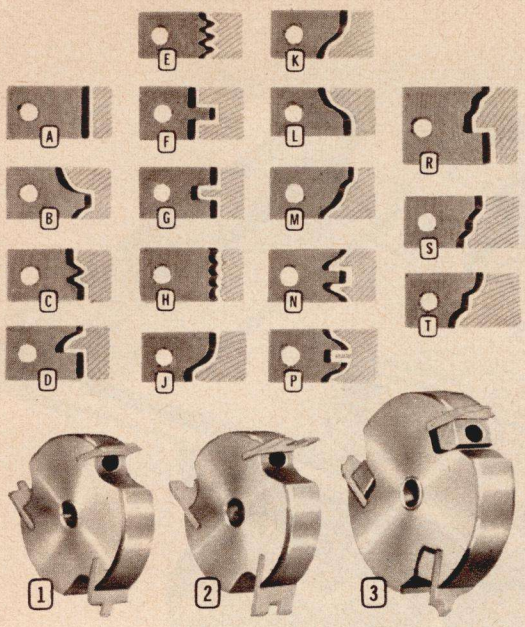
84 KR 2263 MO.....Cash $32.95

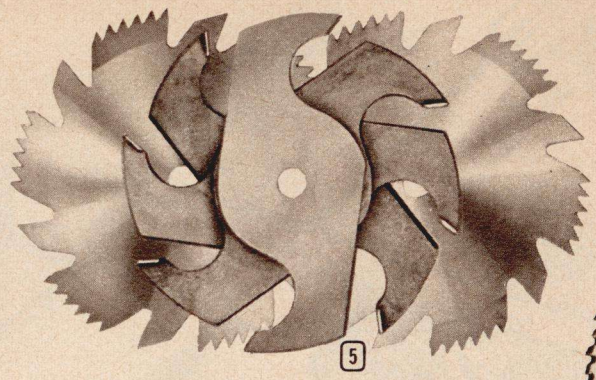
Saw with ½-HP Ball Bearing Capacitor Motor. (83 KR 4541MB, Page 26), 44-in. "V" belt; 4-in. motor pulley. Ship. wt. 79 lbs.

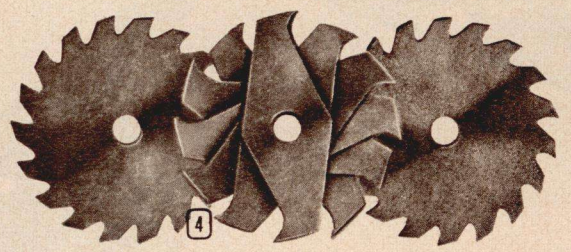
84 KR 3326YO—$6 Dn., Cash $56.75

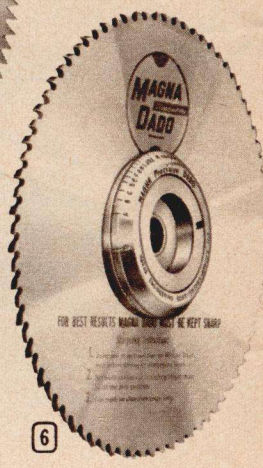


E 32.95









Accessories to Make Your Bench Saw More Useful

MOLDING CUTTER HEADS AND KNIVES 3.75 TO 9.50

1 2 3 Convert your circular saw or Shopsmith into a shaper, jointer and planer with molding cutter head. Make your own moldings, building trim, tongue and groove lumber. Produce an infinite number of molding designs by combining cuts of two or more sets of knives. Each cutter head holds set of three knives of same shape (order separately (A) to (T) below).

(1) POWR-KRAFT MOLDING CUTTER HEAD. Fits most Bench, Floor or Swing saws with ½ or ⅝-in. arbor. 3⅝-in. diam., ⅞ in. thick. Cast aluminum.
84 KR 2267—Use with knives 84 KRP 3104 below. Ship. wt. 2 lbs. $5.45

(2) SHOPSMITH MOLDING CUTTER HEAD. Specially designed to fit Shopsmith spindle. Head is 3⅝-in. diam., ⅞ in. thick. Made of cast aluminum.
84 KRP 3103—Use with knives 84 KRP 3104 below. *Mailed Postpaid*..... $5.75

(3) PARLEC MOLDING CUTTER HEAD. Fits Bench, Floor and Radial saws with ⅝ or ¾-in. diam. arbor. Head is 4½-in. diam., 1 in. wide. Meehanite steel. Counterbored on right side. *Mailed* promptly from Factory near Los Angeles.
84 KR 2268 K—Use with knives 84 KR 2269K below. Ship. wt. 4 lbs. $9.50

A TO T MOLDING CUTTER HEAD KNIVES. Tempered, high-speed steel. Correct angle for true shaving cut. Several sets can cut unlimited variety of shapes. Each set has 3 blades of one shape.

SHOPSMITH MOLDING CUTTER KNIVES. Fit heads (1) and (2) and former No. 84-2265. Knives are ⅛ in. thick, 1 in. wide (except Profile R is 1½ in. wide). *Mailed Postpaid* from Stock.

PARLEC MOLDING CUTTER KNIVES. Fit Parlec head (3) and former No. 84-2270. All knives 3/16 in. thick, 1 in. wide (except Profile R is 1½ in. wide). Shipping weight set 6 oz. Mailed promptly from Los Angeles, Calif. Factory.

State Catalog Number and Profile Letter wanted.

Profile Letter and Description of Knife	Fit Shopsmith and Powr-Kraft Heads. 84 KRP 3104	Fit Parlec Head. 84 KR 2269 K
(A) Blank Square Knives...	Set $3.75	Set $4.95
(B) ¼, ½, Quarter Round..	Set 3.75	Set 4.95
(C) Glue Joint, ½ in. and up.	Set 3.75	Set 4.95
(D) Cabinet Door Lip.....	Set 4.95	Set 5.95
(E) V Flute Molding.....	Set 3.75	Set 4.95
(F) Groove.....	Set 3.75	Set 4.95
(G) Tongue.....	Set 3.75	Set 4.95
(H) 4-Bead Molding.....	Set 3.75	Set 4.95
(J) O.G. Molding.....	Set 3.75	Set 4.95
(K) O.G. Molding.....	Set 3.75	Set 4.95
(L) O.G. Molding.....	Set 3.75	Set 4.95
(M) Reverse O.G.....	Set 3.75	Set 4.95
(N) Panel Insert.....	Set 4.95	Set 5.95
(P) Panel Insert Cope.....	Set 4.95	Set 5.95
(R) 1⅜-in. Sash.....	Set 4.95	Set 5.95
(S) 1⅜-in. Sash Cope.....	Set 4.95	Set 5.95
(T) Bead, Cove Molding...	Set 3.75	Set 4.95

ADJUSTABLE MATERIAL STAND 7.50

7 Support and convey long and wide materials with this convenient material support stand. Saves time and effort. Adjusts to working height of most shop machinery—28 to 44 in. from floor to top of roller. Rust-resistant, heavy-duty steel construction. 12-in. metal roller.
84 KR 2259 M—Ship. wt. 8 lbs. $7.50

DADO HEAD ASSEMBLIES 2.79 TO 28.95

4 5 Make your bench saw more versatile—use dado heads for dadoing, grooving, rabbeting, notching. Cuts can be varied in width and depth.

(4) HOBBYISTS' QUALITY. Made of stamped steel. Sets include two outside blades and six 1/16-in. thick chippers. *State diameter and bore size.*

Cat. No.	Diam.	Bore, in.	Blade Thick.	Ship. wt.	Price
84 KR 2282	4 in.	½	3/32 in.	1 lb.	$2.79
84 KR 2282	5 in.	½ or ⅝	⅛ in.	1 lb. 8 oz.	4.45

(5) PROFESSIONAL QUALITY. Precision ground, tempered alloy tool steel. Set includes: two outside blades ⅛ inch thick, four chippers (one 1/16 inch, two ⅛ inch, one ¼ inch thick). 8 and 10-inch diameter *Mailed* promptly from Factory in Buffalo, N. Y.; you pay postage from there. 6-inch diameter *Mailed* from Stock. *State Catalog Number, diameter and bore size wanted.*

Cat. No.	Diameter	Bore, in.	Ship. wt.	Price
84 KR 2283	6 in.	½ or ⅝	3 lbs. 8 oz.	$7.95
84 KR 2283 K	8 in.	⅝ or ¾	6 lbs.	22.95
84 KR 2283 K	10 in.	⅝ or ¾	9 lbs.	28.95

MAGNA DADO—ONE-PIECE PRECISION UNIT 14.95

6 For faster, more accurate dadoing. Wobble type. A complete one-piece unit for grooving, dadoing, notching, rabbeting, tenoning, crosscutting or ripping. No blades and chippers to assemble—no shimming necessary to obtain the exact width of cut desired. Extremely easy to operate. Only one quick adjustment with Allen wrench and calibrated dial. Gear synchronized hubs control blade for any width of cut from 5/32 to ⅞ inch and up to 2 inches deep. "Whipping" action is eliminated by heavy 8-inch diameter ⅛-inch thick blade with special tooth design.

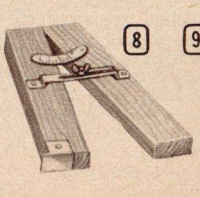
Also excellent for straight sawing—use as a rip or crosscut blade—allows alternate straight sawing and dadoing without changing blades. Makes your bench saw more versatile. Fits most saws with ⅝ or ¾-inch diam. arbor. See cross-section view at right.

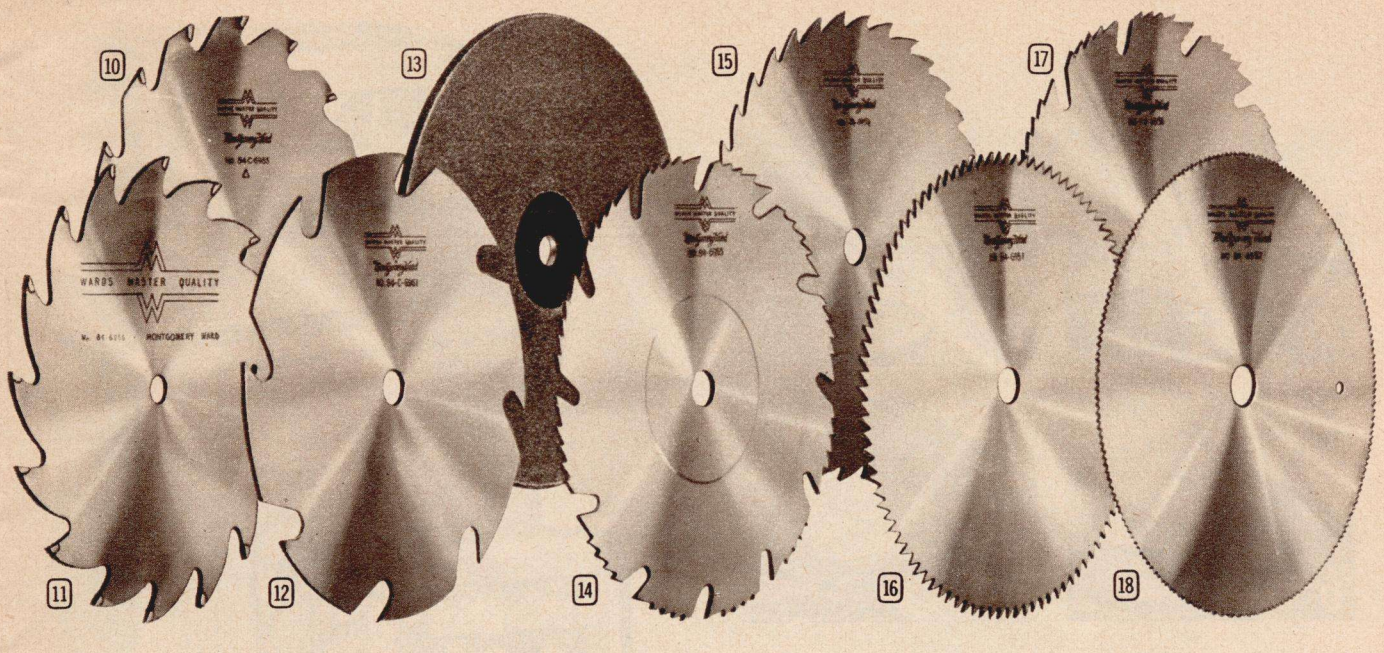
84 KRP 3300—*Mailed Postpaid*..... $14.95

BENCH SAW ACCESSORIES 2.95 AND 8.50

8 ADJUSTABLE ANGLE JIG. Set to cut angles and tapers from 1 to 21°—locks firmly in place. Higher angles possible by moving adjusting clamps. Hardwood construction. Fits any bench saw equipped with a rip fence.
84 KR 2275—Shipping weight 1 lb. 8 oz. $2.95

9 FOOT SWITCH. Maintained contact type—press to start, press to stop. Light pressure from foot operates switch—leaves both hands free for work. Switch may also be mounted on side of bench or wall and operated by slight pressure from knee. Ideal for starting and stopping motors up to 1 HP. Used with power tools, for photographic work, sound and transmission equipment, riveting machines, punch presses, etc. Switch is fully enclosed and hooded for protection against dirt and chips. Black crackle enamel finish. 6½ in. long, 5⅜ in. wide, 3¼ deep. Double pole, single throw. 20-amp., 110–120 to 220–240 volts AC-DC. Shipped promptly from Factory near Hartford, Conn. Pay postage from there. Order cord separately, see Page 27.
84KR2950K—Wt. 5 lbs. *Mail.* $8.50





Fast-Cutting Saw Blades For Every Purpose

CARBIDE TIPPED SAW BLADES 8.45 TO 19.50

10 11 Special high-grade alloy steel blades with tungsten carbide tips silver-brazed to blade and finish-ground with diamond wheel to exact tolerances for faster, smoother, more efficient cutting. Uses less power than ordinary blades and generates less heat. Wards Master Quality lasts up to 25 times longer than ordinary blades before resharpening; Professional Quality chrome nickel alloy steel lasts up to 100 times longer. Gives substantial saving in sharpening costs. Cuts hardwood, transite, Formica, plastics, roofing, siding, etc. Engineered for long-life cutting.

(10) 84 KR 6965 L—Wards Master Quality. *State diameter.*

(11) 84 KR 6966 L—Professional Quality. *State diameter.*

Diam.	Teeth	Fits Hole size	Ship. wt.	84 KR 6965 L	84 KR 6966 L
7 in.	14	½ or ⅝ in.	1 lb.	$8.45	$12.95
8 in.	16	½ or ⅝ in.	1 lb.	8.95	14.95
10 in.	20	⅝ or ¾ in.	1 lb.	.....	19.50

8-TOOTH SAFETY SAW BLADES 1.45 TO 3.59

12 Combination rip-crosscut blade, made of electric furnace chrome alloy steel. Far safer than ordinary blades because of its "cut-control" principle. Teeth project only about .020 inch above non-cutting edge (.030 inch on 10 and 12-inch sizes). Reduces major cause of saw accidents . . . teeth cannot grab wood and throw it back at operator. Non-cutting edge acts as effective stop to cuts and limits their depth. Efficient tooth construction means less wasted power, longer motor life. Cuts chips, not sawdust—easier to clean, reduces fire hazard. Has longer life between sharpenings. Gives smoother cut and quieter, more efficient operation. *State diameter.*

Catalog No.	Diameter	Fits Hole size	Gauge	RPM	Ship. wt.	Price
84 KR 6961L	6 in.	½ or ⅝ in.	18	6000	12 oz.	$1.45
	7 in.	½ or ⅝ in.	18	5140	12 oz.	1.69
	8 in.	½ or ⅝ in.	16	4500	1 lb.	1.79
	10 in.	⅝ or ¾ in.	16	3600	1 lb. 8 oz.	2.49
	12 in.	¾ or 1 in.	14	3000	2 lbs. 8 oz.	3.59

BLADES FOR ALL PORTABLE ELECTRIC SAWS LISTED ON PAGE 50.

SANDING WHEEL, SAW BLADES 1.59 TO 8.75

13 STEEL SANDING WHEEL. Convert bench saw into disc sander. For bench saws with ½ or ⅝-inch diameter arbors. With one medium and one coarse abrasive disc.
84 KR 2285—Shipping weight 4 lbs. $2.89

EXTRA DISCS FOR (13) ABOVE. Set of 2 fine, 2 medium and 2 coarse grit.
84 KR 2286—Shipping weight package, 10 oz. ..... Package of six 55c

14 WARDS MASTER QUALITY HOLLOW GROUND COMBINATION SAWS. Hollow (taper) ground design means less friction; blades run faster, longer without heating up. Teeth are not set because blade is tapered from edge to center to provide clearance at sides, reduces sharpening time. Narrower kerf means cleaner, more accurate cuts. No after-planing necessary; prevents binding, minimizes kick-back. Tough special analysis chrome-nickel alloy steel. Fancy combination tooth blades do crosscutting, mitering and ripping, perform nearly all sawing jobs without change of blade.

When ordering, state Catalog Number and diameter. Mailable.

Catalog No.	Diameter	Gauge Taper	Fits Hole size	RPM	Ship. wt.	Price
84 KR 6955 L	7 in.	14 to 17	½ in. or ⅝ in.	5140	1 lb.	$2.75
	8 in.	14 to 17	½ in. or ⅝ in.	4500	1 lb. 8 oz.	3.49
	10 in.	14 to 17	⅝ in. or ¾ in.	3600	2 lbs. 4 oz.	6.75
	12 in.	13 to 16	¾ in. or 1 in.	3000	3 lbs. 4 oz.	8.75

15 16 17 WARDS MASTER (BEST) QUALITY FLAT GROUND SAWS. Made of special analysis chrome-nickel alloy saw steel, heat-treated and tempered for longer life of teeth. Precision tempered, filed and spring-set by hand. Highly polished finish—will not bind. Choice of three types of teeth.

When ordering, state Catalog Number and diameter. Mailable.

Diam.	Gauge	Fits Hole Size	RPM	Ship. wt.	(15) 84 KR 6954L Rip	(16) 84 KR 6951L Crosscut	(17) 84 KR 6956L Combination
6 in.	18	½ or ⅝ in.	6000	12 oz.	$1.59	$1.59	$1.59
7 in.	18	½ or ⅝ in.	5140	12 oz.	1.79	1.79	1.79
8 in.	18	½ or ⅝ in.	4500	1 lb.	1.89	1.89	1.89
10 in.	16	⅝ or ¾ in.	3600	1½ lbs.	2.79	2.79	2.79
12 in.	14	¾ or 1 in.	3000	2½ lbs.	3.89	3.89	3.89

18 PLYWOOD BLADE. Wards Master Quality. Chrome-nickel alloy saw steel. Cuts plywood with minimum of splintering. For cabinet work; cutting flooring, plastics.

84 KR 6957 L—20-ga., .035 in. thick. ½ or ⅝-in. bore.
7-in. 200-tooth blade. Ship. wt. 9 oz. . $1.79; 8-in. 250-tooth blade. Ship. wt. 12 oz. . . $1.89

CIRCULAR SAW SET, FILER AND MANDRELS 1.98 TO 8.95

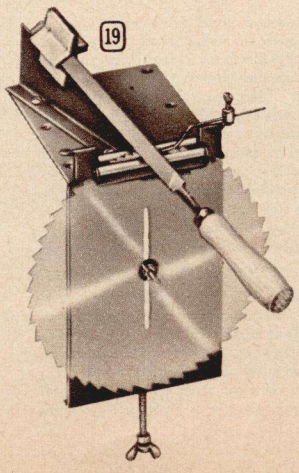
19 CIRCULAR SAW BLADE FILER. Designed to insure correct pitch and bevel when filing. Gives precise angle to saw teeth.
84 KR 4038—Instructions included. Ship. wt. 3 lbs. $7.98

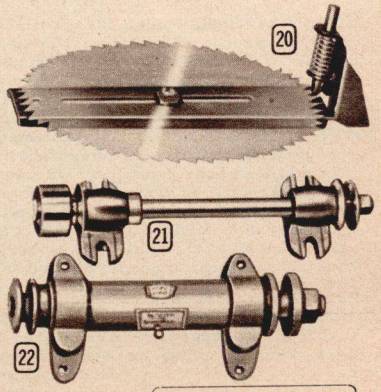
20 CIRCULAR SAW SET. Sets teeth properly on circular saws for different cutting purposes. Takes blades up to 10 in.
84 KR 4036—Instructions included. Ship. wt. 8 oz. $1.98

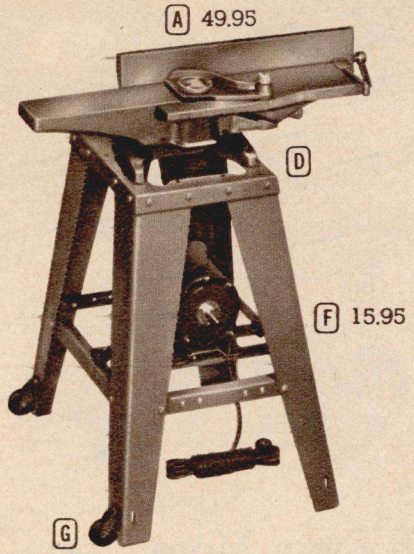
COMBINATION SAW FILER SET. Save $1—buy complete sharpening outfit.
84 KR 4037—Includes Saw Filer (19) and Saw Set (20). Wt. 3 lbs. 8 oz. . . $8.95

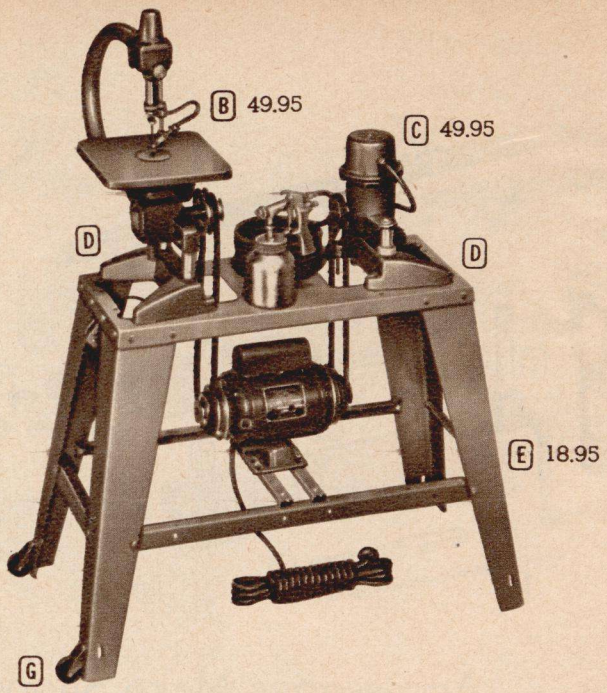
21 LIGHT-DUTY SAW MANDREL. Cold rolled ground and polished steel shaft shouldered to saw bore size with standard threads. Bronze bearings. Die-cast pulley. Cast pillow Blocks. *State diam.*
84 KR 7010 L—For ½-in. "V" belt, 1-in. flat belts.
Diam. ⅝ in.; threaded ½ in. Ship. wt. 4 lbs. $3.25
Diam. ¾ in.; threaded ⅝ in. Ship. wt. 5 lbs. 3.95

22 HIGH-SPEED SAW MANDREL. Zerk fittings. Cast housing. Double-sealed ball bearings. Ground, polished steel shaft. Left-hand thread. *State diam.*
84 KR 7005—Shaft diam. ½ in. Ship. wt. 5 lbs. $5.45
Shaft diam. ⅝ in. Wt. 6 lbs. . . . $5.95; Shaft diam. ¾ in. Wt. 8 lbs. . . . 8.45









Magna Belt-Driven Power Tools . . . "Shop on the Wall"

ECONOMICAL . . . ALL MAGNA POWER TOOLS UTILIZE SAME BASE, STAND AND MOTOR

Magna Engineering Corporation, makers of the famous Shopsmith, present another new idea in woodworking—the "Shop on the Wall". Magna Power Tools, finest quality single-purpose tools, utilize a unique twin-tube mounting system which allows you to use one stand and one motor—tools may be interchanged quickly and easily. Economical—saves you the cost of purchasing duplicate stand and motor for each tool—gives complete flexibility in choice of arrangement. Tools that are not in use can be easily stored on a shelf or hung on the wall—saves valuable floor space.

Any number of Magna tools can be used with only one stand (E) or (F), and one motor. Stand (E) permits mounting of any two tools at the same time. Available now are the Magna Jig Saw, Jointer and Paint Sprayer listed below. Additional tools, such as the Band Saw and the Belt Sander, to be announced in the future, will complete the Magna woodworking shop. All Magna belt driven power tools will utilize the same base, stand and motor.

If you are buying your first Magna tool, order combination unit (listed below each tool) which includes power tool plus base, machine pulley and belt. Order motor and stand separately below. To mount two tools at the same time, order 84 KRP 3399YO consisting of double utility stand, ½-HP Capacitor motor and two motor pulleys. When ordering your second tool, you need only base, belt and machine pulley. Only belt and machine pulley are needed with subsequent tools to complete your Magna workshop. See below for Wards Guarantee of Magna Power Tools.

MAGNA 4-IN. JOINTER 49.95

(A) BALL BEARING MODEL. *Guaranteed 1 year. Heavy cast-iron construction reduces vibration, assures smooth operation. Width of cut 4 in. Maximum depth of cut ⅜ in. 2¼-in. diam. cutter head runs on 2 lubricated-for-life ball bearings. 3 high-speed knives, individually adjustable. Extra-long 28-in. table surface. Cast-iron fence, 3x21¾ in., adjusts to 45° either way with automatic stops, locks with single knob. Spring-tensioned safety guard. *Mailed Postpaid from Stock.*

84 KRP 3449 MOX—Only $5 Down, Cash $49.95

(D) MOUNTING BASE. Heavy cast aluminum. Use to mount any Magna tool on stand.

84 KRP 3376—*Mailed Postpaid*.....$3.95

JOINTER "V" PULLEY. 1¾-in. diameter.

84 KRP 3382—*Mailed Postpaid*.....75c

RUBBER "V" BELT. ½-in. width. 45 in. long.

84 KRP 3386—*Mailed Postpaid*.....$1.45

MAGNA JOINTER WITH BASE, 1¾-IN. "V" PULLEY AND 45-IN. "V" BELT. *Mailed Postpaid.*

84 KRP 3397 YO—$6 Down.....Cash $56.10

MAGNA 18-IN. JIG SAW 49.95

(B) HEAVY-DUTY BALL BEARING MODEL. *Guaranteed one year (see below). Cuts to center of 36-in. panel, depth of cut is 2 in. 11x11-in. table tilts to 45°. Special mechanism permits high speed operation. Universal chucks rotate 90° for handling long work; entire arm quickly swings down for saber sawing or filing operations. Has built-in blower, adjustable blade guide, hold down and blade tensioning device. With 5-in. plain-end blade. *Mailed Postpaid from Stock.*

84 KRP 3429 MOX—Only $5 Down..Cash $49.95

(D) MOUNTING BASE. Heavy cast aluminum. Use to mount any Magna tool on stand.

84 KRP 3376—*Mailed Postpaid*.....$3.95

3-STEP JIG SAW "V" PULLEY. 2, 3, 4-in. diam. steps.

84 KRP 3384—*Mailed Postpaid*.....$1.65

RUBBER "V" BELT. ½-in. width. 53 in. long.

84 KRP 3387—*Mailed Postpaid*.....$1.55

MAGNA JIG SAW WITH BASE, 3-STEP PULLEY AND 53-IN. "V" BELT. *Mailed Postpaid.*

84 KRP 3396 YB—$6 Down.....Cash $57.10

NEW MAGNA PAINT SPRAYER 49.95

(C) DIAPHRAGM TYPE. Compressor displaces 4.0 cubic feet of air. At 1750 RPM it delivers 2.4 cubic feet of air at 30 lbs. working pressure. *Guaranteed one year (see below). One 5-foot and one 10-foot section of hose with special coupling to permit insertion of up to 100 ft. of regular garden hose. Outfit includes compressor, bleeder-type dual-purpose gun with one-quart aluminum container, separate internal and external mix spray heads, dusting nozzle and tire inflater. *Mailed Postpaid from Stock.*

84 KRP 3472 MBX—Only $5 Down.....Cash $49.95

(D) MOUNTING BASE. Heavy cast aluminum. Use to mount any Magna tool on stand.

84 KRP 3376—*Mailed Postpaid*.....$3.95

SPRAYER "V" PULLEY. 3¼-in. diameter.

84 KRP 3383—*Mailed Postpaid*.....$1.15

RUBBER "V" BELT. ½-in. width. 45 in. long.

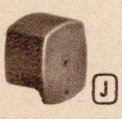
84 KRP 3386—*Mailed Postpaid*.....$1.45

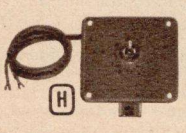
MAGNA SPRAYER WITH BASE, 3¼-IN. "V" PULLEY AND 45-IN. "V" BELT. *Mailed Postpaid.*

84 KRP 3398 YB—$6 Down.....Cash $56.10

*GUARANTEED ONE YEAR: Wards guarantee Magna Power Tools and accessories to be free from defects in workmanship or materials, and will repair or replace any defective parts within one year from date of purchase. For details of Wards convenient Monthly Payment Plan, see Page 32. Only 10% Down on orders totaling $20 or more. If you have an account with us, use our "Add-on" plan. All items on these 2 pages may be purchased on Terms.

STANDS, MOTOR AND ACCESSORIES FOR MAGNA "SHOP ON THE WALL"





(E) (F) UTILITY STANDS. Any number of Magna tools can be used with only one of these stands and one motor (see below). Both of heavy-gauge formed steel; enameled finish matches tools.

(E) DOUBLE UTILITY STAND. Uses only one motor to drive any two Magna tools. Permits mounting of two tools at the same time. 12¾x31½x27 inches high.

84 KRP 3378 MB—*Postpaid*.....$18.95

(F) SINGLE UTILITY STAND. 12¾x15½x27 in.

84 KRP 3377 MB—*Mailed Postpaid*. $15.95

(G) CASTERS. Fit both utility stands above. Set of two casters.

84 KRP 3379—*Mailed Postpaid*..Set $1.25

(H) SAFETY SWITCH. Convenient outlet. Two-ft. cord to connect to motor.

84 KRP 3381—*Mailed Postpaid*.....$3.95

(J) PULLEY GUARD. Fits any Magna tool.

84 KRP 3380—*Mailed Postpaid*..$3.95

4-STEP MOTOR PULLEY. 2, 3, 4 and 5-inch diameter steps. ⅝-in. bore.

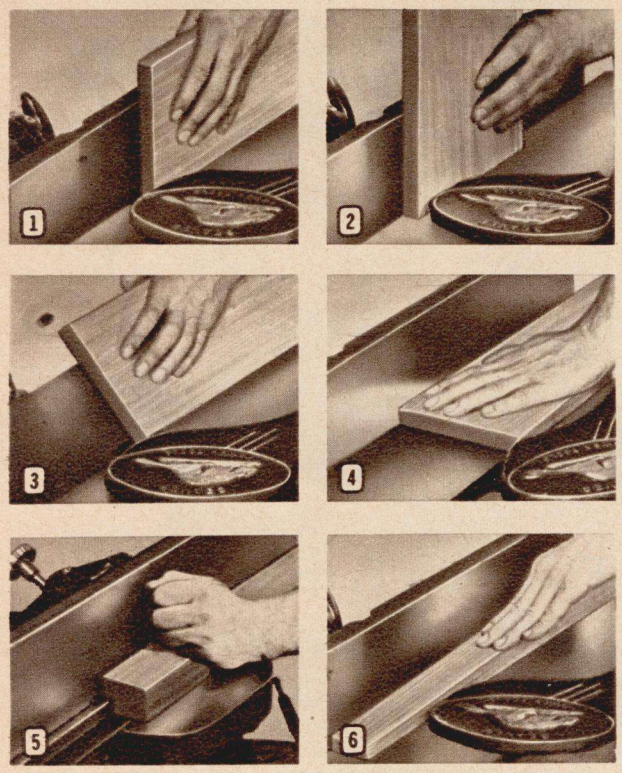
84 KRP 3385—*Mailed Postpaid*.....$2.35

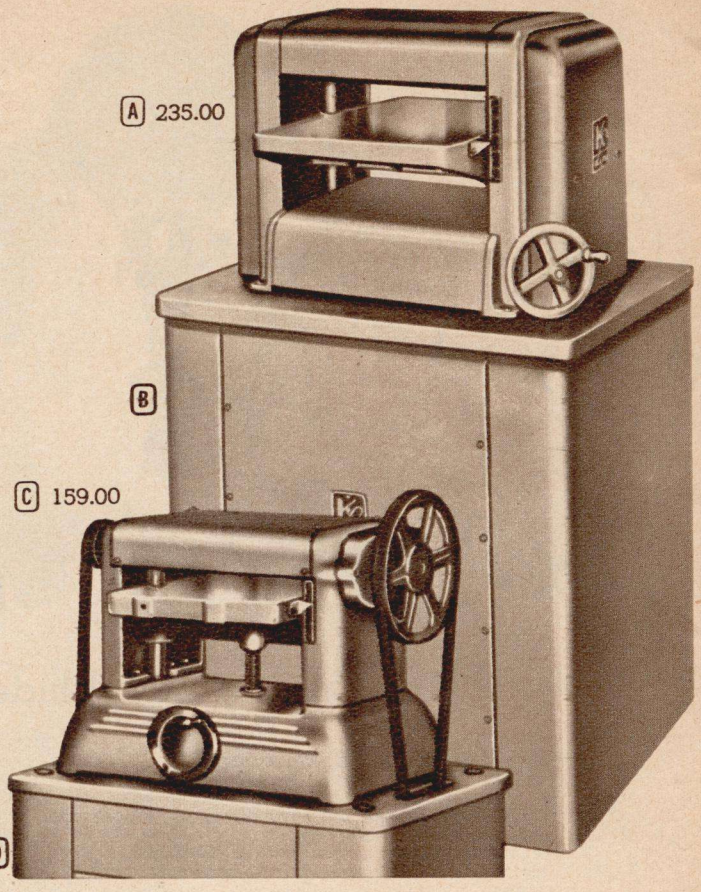
½-HP CAPACITOR MOTOR. For use with all Magna power tools. 1725 RPM. Double ⅝-inch shaft. Ball bearing. Guaranteed 1 year.* For 110–120 volt, 60 cycle AC. Only $3 Down on Monthly Terms.

83 KRP 4542 MB—*Mailed Postpd.*Cash $29.95

DOUBLE STAND WITH MOTOR, MOTOR PULLEYS. To mount two tools at the same time. Includes ½-HP Capacitor Motor (above), Double Utility Stand (E) and two 4-step motor pulleys (at left). Only $5.50 Down on Wards Monthly Terms.

84 KRP 3399 YO—*Mailed Postpd.*Cash $53.60





Selecting The Correct Jointer-Planer For Your Needs

The jointer-planer is essential to accurate craftsmanship and is a "must" for the man concentrating on furniture making, cabinet work, remodeling and construction. No other tool can approach it for producing absolutely straight and parallel edges and surfaces. It does in a few seconds what formerly took hours with a hand plane, assuring a straight and true starting edge, necessary for making accurate miter or other cuts. It is also used extensively for squaring up stock to dimensions.

Your selection of a jointer-planer will be guided by its capacity—or width of the cutting knife. If the majority of your work will be edge jointing or rabbeting, a 4 to 5-inch size is adequate. For much surface planing the 6-inch size is recommended. (For big capacity production-type surfacing, thickness planers are available, see (A) and (C) at right.) Light duty jointer-planers with bronze bearings are satisfactory for many home workshop uses, but ball or roller bearings are necessary to stand up under the punishment of heavy-duty or constant production type work.

IMPORTANT FEATURES OF A GOOD JOINTER-PLANER. The cutter head is the heart of the jointer. Precision machining and absolutely perfect balancing are necessary in this unit, revolving at an operating speed of about 3800 to 4600 RPM. The blades must be specially built of tempered, heat-treated steel to withstand this high-speed use and still retain a sharp cutting edge. Depth of cut is regulated by raising or lowering the infeed table. Convenient, accurate operating controls and a gauge to indicate depth of cut are necessary. The fence must be rigidly supported to provide a firm surface for guiding work over the cutting head. The fence moves back or forward over the table to determine width of cut. It also should have adjustments for tilting for making angle cuts. The outfeed table is not normally moved; however, if it is adjustable it permits alignment to compensate for blade wear.

USES OF THE JOINTER-PLANER. Six principal uses are pictured in views at top of this column. For edge jointing (1), care should be taken that fence is set at an exact 90° angle to table; for finishing operations no more than a shaving cut should be taken off in one pass over cutter head. For end jointing (2), make two separate cuts, one from each side, going about half way through in order to prevent splitting of wood. Beveling (3), is done by tilting the fence to desired angle, then pushing wood over cutter head in regular manner; fences on many jointers can be tilted in either direction. Surfacing of boards (4), is done to eliminate warp in lumber prior to performing other operations. Make as many passes over cutter head as are necessary to obtain a flat, straight surface. Rabbeting (5), is done by moving fence to edge of table to obtain desired width of rabbet or groove. Make as many cuts as necessary to obtain depth of cut wanted. Tapering (6), is done by lowering the infeed table and advancing wood across cutter head.

THICKNESS PLANERS. These production-type tools have big capacity for surfacing stock, and at the same time reducing lumber to the desired thickness. Capacity of planers is the size of the widest stock that can be handled. Depth of cut is regulated by hand wheels which raise and lower work table. Most workshop models have corrugated infeed rollers to pull in lumber, and rubber-covered outfeed rollers to protect the finished surface.

"K-Line" Thickness Planers . . .

"K-LINE" BALL BEARING THICKNESS PLANERS 159.00 AND 235.00

Heavy Duty production models are sturdily built to withstand constant pressure of daily production work in pattern shops, mills, cabinet shops, etc. Built for big capacity jobs, yet exceptionally accurate—both models hold cut to within one thousandth of an inch. Maximum depth of cut 1/8 inch; minimum depth of cut 1/16 inch. Minimum length of stock that can be handled 4¼ inches. Power feed rate 9 feet per minute.

Both models have precision built cutter head fitted with three high-carbon, hi-chromed steel blades—runs smoothly, quietly on New Departure ball bearings. Cutter operates at 3600 RPM, with knives making 100 cuts per inch of travel of stock. Machined surfaces ground to close tolerances to assure accurate, balanced operation. Thickness planers and stands listed below shipped promptly by Freight or Truck from Factory in Toledo, Ohio. Pay freight from there. Details of Monthly Payment Plan on Page 32.

(A) 12½-INCH HEAVY DUTY POWER FEED PRODUCTION MODEL. Handles lumber up to 4 by 12½ in., planes to uniform thickness. Infeed rolls of solid bar stock with ground bearing surfaces. Coarse straight knurl delivers ample driving power with minimum amount of gumming of roller. Outfeed rolls covered with neoprene rubber to prevent marring stock. Adjustable compression spring tension. Chip breaker keeps chips away from operating side of planer. Table 12¼ by 20 in. is semi-steel gray iron casting, has polished surface. Hand wheel control advances table 1/32 inch for each revolution, through twin self-locking worm and worm wheels of bronze and steel; micrometer adjustment. Power feed drive only. Size overall 22 by 20 by 18 in. Order motor and stand (B) separately below.

84 KR 2504 F—Ship. wt. 182 lbs. $23.50 Down on Terms.....Cash $235.00

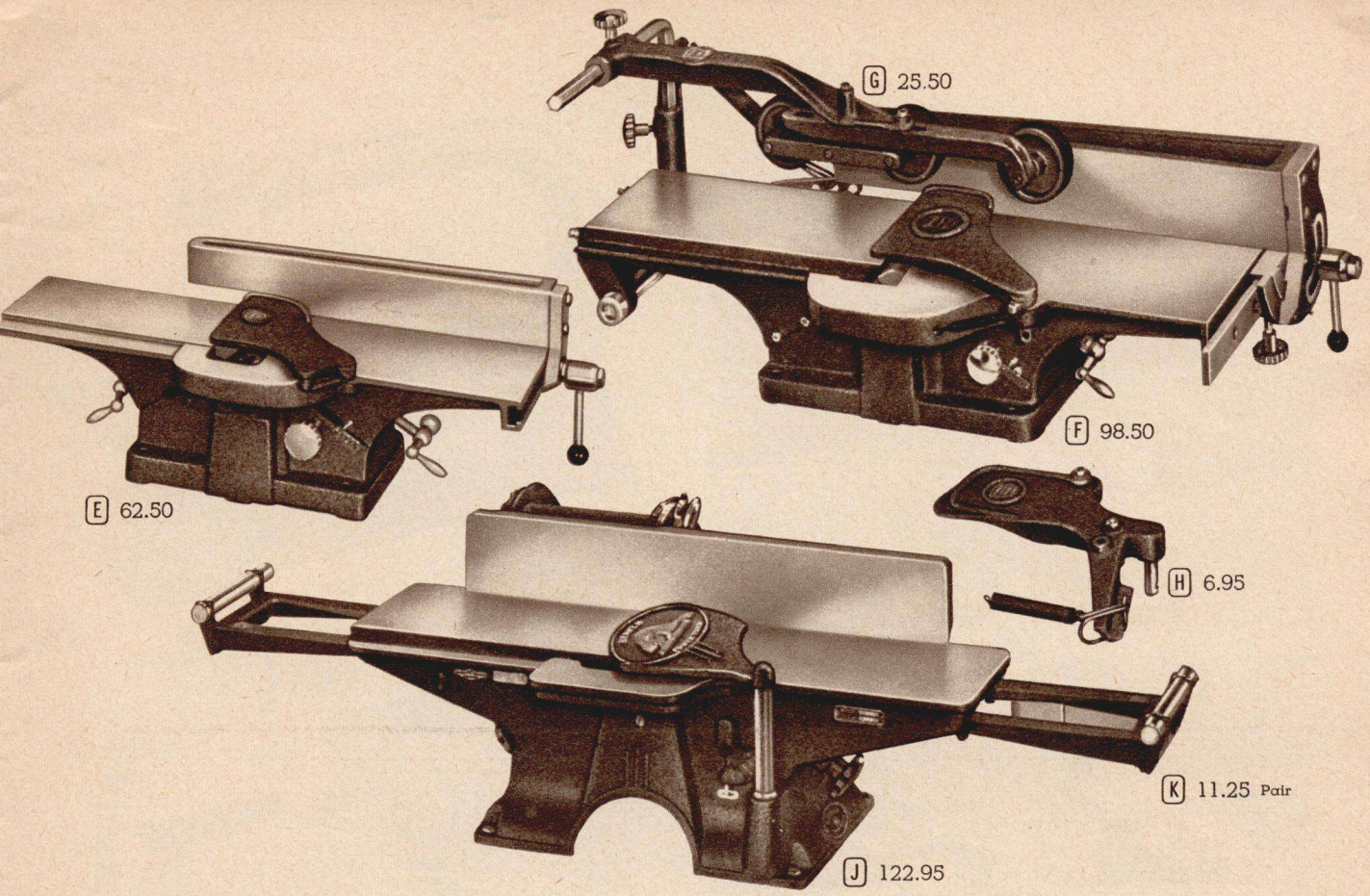
MOTOR FOR PLANER (A) ABOVE. 1½-HP ball bearing Repulsion-Induction type.
83 KR 4640 R—Ship. wt. 90 lbs. State HP. From Stock. $9 Down....Cash $90.00

(B) STAND FOR PLANER (A) ABOVE. Completely encloses motor and driving pulleys and belts. 18-gauge steel. Size overall 20½ by 26 by 29 in. high.
84 KR 2523 F—Ship. wt. 103 lbs. $4.50 Down on Terms..... Cash $45.00

(C) 10-INCH HEAVY DUTY POWER AND HAND FEED MODEL. Hand crank feeding prevents tearing of curly grained woods. Handles lumber up to 2¾ inch thick by 10 in. wide. Infeed roll of bar steel with corrugated and hardened surface mounted in bronze bearings. Adjustable feed roll pressure. Gray iron table 11 by 14 in. moves by hand wheel at rate of 1/16 inch per revolution. With precision graduated gauge for measuring depth of cut. Size overall 18 by 12 by 12 in. Order motor and stand (D) separately below.
84 KR 2518 F—Ship. wt. 132 lbs. $16 Down on Terms.....Cash $159.00

MOTOR FOR PLANER (C) ABOVE. ¾ HP sleeve bearing Repulsion-Induction type. See Page 27 for complete description.
83 KR 4612 MO—Ship. wt. 43 lbs. State HP. From Stock. $5.50 Down, Cash $52.00

(D) STAND FOR PLANER (C) ABOVE. Similar to stand (B) but smaller size.
84 KR 2522 F—Ship. wt. 75 lbs. $3.50 Down on Terms.....Cash $35.00



Powr-Kraft and Beaver Ball Bearing Precision Jointers

MEDIUM AND HEAVY DUTY JOINTERS 62.50 AND 98.50

Powr-Kraft Ball Bearing Jointer-Planers (E) and (F) below have precision-made 3-blade cutter heads with chip breakers, dynamically balanced after knives are installed for accuracy. Knives are high-speed tool steel, carefully sharpened and heat treated to maintain keen edge over long periods. Infeed and outfeed tables precision machined and ground in pairs after assembly to insure perfect alignment. Infeed tables have rabbeting arm, outfeed tables have rabbeting ledge. Fences tilt to 45° in either direction. Gauges show tilt, depth of cut. Detachable spring guards mounted over cutter heads.

(E) POWR-KRAFT 5-IN. BALL BEARING MODEL. For medium duty workshop use. Runs smoothly on grease-sealed New Departure ball bearings. Has all precision Powr-Kraft features described above. Maximum depth of cut and rabbet is ⅜ in. Heavy cast-iron base and table. Easy operating ball crank and lever lock controls. See complete specifications below at right.
84 KR 2506 MO—*Mailable.* Ship. wt. 54 lbs. $6.50 Down.....Cash $62.50

5-IN. POWR-KRAFT JOINTER (E) above complete with ½-HP ball bearing motor (83 KR 4541MB, Page 26), 5-in. "V" motor pulley, 46-in. "V" belt.
84 KR 2507 YO—*Mailable.* Ship. wt. 83 lbs. $9 Down.....Cash $86.50

(F) POWR-KRAFT 6-INCH BALL BEARING MODEL. Heavy-duty production type tool for industrial shops, advanced woodworkers, etc. Cutter head machined from solid bar stock. Has all precision Powr-Kraft features described above. Runs smoothly, with no vibration on grease-sealed New Departure ball bearings. Maximum depth of cut and rabbet is ½ in. See complete specifications at right below. Hold-down attachment not included, see (G).
84 KR 2508 R—*Not Mailable.* Ship. wt. 113 lbs. $10 Down.....Cash $98.50

6-IN. POWR-KRAFT JOINTER (F) above with ½-HP ball bearing capacitor 1725 RPM motor (83 KR 4541MB, Page 26), 5-in. motor pulley, 46-in. "V" belt.
84 KR 2509 R—*Not Mailable.* Ship. wt. 149 lbs. $12.50 Down....Cash $121.50

(G) JOINTER HOLD-DOWN. Fits (F) only. Mechanically duplicates skillful touch of the professional. Spring loaded roller exerts continuous, sensitive pressure. Rubber rollers guide stock. One man can plane or joint lumber up to 16 ft. long. Capacity 8½ in. vertical; full table width horizontal. Sets below table level when not in use. Shipped promptly from Factory in Chicago, Ill.
84 KR 2510 KB—*Mailable.* Ship. wt. 31 lbs. $3 Down.....or Cash $25.50

(H) PRESSURE GUARD. Fits jointer (F) only. Use with (G) above. Roller gives constant side pressure. Tension spring adjusts to 5 different pressure positions for various widths of stock. Shipped promptly from Chicago Factory.
84 KR 2524 K—*Mailable.* Ship. wt. 6 lbs. 8 oz.....$6.95

HINT ON REPLACING JOINTER BLADES. When truing cutter blades after sharpening, check bevel just behind cutting edge. If more than 1/32 in. wide, grind off heels to prevent friction and heat which will spoil temper of knives and produce a glazed surface on wood which you are working.

BEAVER HEAVY DUTY 6-INCH JOINTER 122.95

(J) PROFESSIONAL QUALITY MODEL. Big capacity tool, designed and built to meet exacting requirements of skilled craftsmen and production workshops. Runs smoothly and quietly on Timken roller bearings mounted on heavy adjustable steel trunnions. Cutter head and pulley machined in one piece from solid steel bar stock with three slots for alloy steel cutter knives. Head and blades are precision machined to close tolerances and perfectly balanced. Maximum depth of cut and rabbet is ⅝ inch. Table adjusts to desired working height by hand knobs. Machined cast semi-steel fence tilts to 90° on heavy trunnions, locks rigidly at any angle. Fence assembly mounted on two 1-inch ground steel bars securely fastened to rear table. Accurate scale indicates degrees of tilt.

Cast aluminum front and rear blade guards. Steel support rod permits any depth of cut without changing clearance between front guard and rear table. Rear guard fastened securely to fence, has 6-in. scale for setting desired cutting width. Heavy cast semi-steel base incorporates belt and pulley housing. Tool can be driven from below or behind. Precision-ground bottom surfaces insure level set up. Size overall 22 by 35 by 13½ in. See table below for complete specifications. Beaver Jointers and Rollers (K) below are made in Canada and shipped promptly from Detroit Factory Warehouse; you pay freight from there. Order motor and table extension rollers separately below.
84 KR 2516 F—Ship. wt. 165 lbs. $12.50 Down on Terms.....Cash $122.95

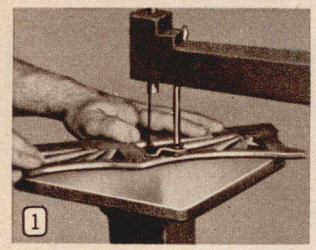
MOTOR FOR BEAVER LATHE ABOVE. ½ HP ball bearing capacitor 1725 RPM.
83 KR 4541 MB—Mailed from Stock. Ship. wt. 28 lbs. $2.50 Down.Cash $24.50

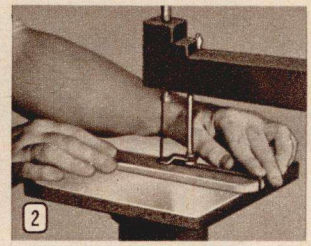
(K) TABLE EXTENSION ROLLERS. Attach on Jointer-Planer (J). Gives 26 in. more table working area. See "Shipping Information" above.
84 KR 2517 K—*Mailable.* Shipping weight 13 lbs.....Pair $11.25

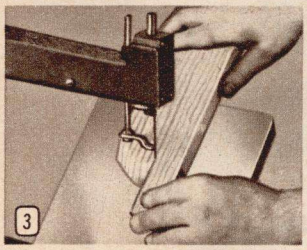
JOINTER-PLANER SPECIFICATIONS

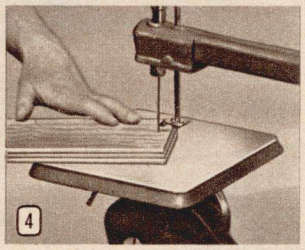
Catalog Number	(E) 84 KR 2506 MO	(F) 84 KR 2508 R	(J) 84 KR 2516 F
Width of Cut	5 in.	6 in.	6 in.
Maximum Depth of Cut	⅜ in.	½ in.	⅝ in.
Maximum Depth of Rabbet	⅜ in.	½ in.	⅝ in.
Infeed Table, in.	6x12½	7½x16	7⅜x16½
Outfeed Table, in.	6x12½	7½x17	69/16x167/16
Bearings	Ball	Ball	Roller
Knife Size	5 1/16 in.	6⅛ in.	6 in.
Depth Adjustment	Ball Crank	Ball Crank	Hand Knob
Machine Pulley (included)	2-in. diam.	2-in. diam.	3-in. diam.
Fence Adjustment	Lever Lock	Double Lock	Cam Clamp
Recommended Speed	4300 RPM	4300 RPM	4600 RPM
Recommended Motor	½-HP	½-HP	½-HP
Recommended "V" Belt	46 in.	46 in.	50 in. (included)
Recommended Motor Pulley	5-in. diam.	5-in. diam.	8-in. diam.
Recommended Stand	84 KR 2962 MB	84 KR 2962 MB	84 KR 2957 B

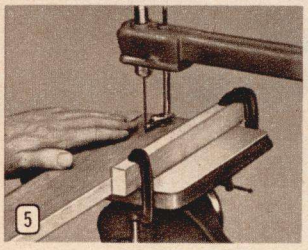
FOR 4-INCH JOINTER, SEE NEW MAGNA BALL BEARING MODEL LISTED ON PAGE 8.

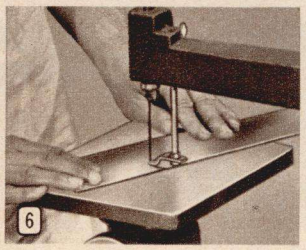


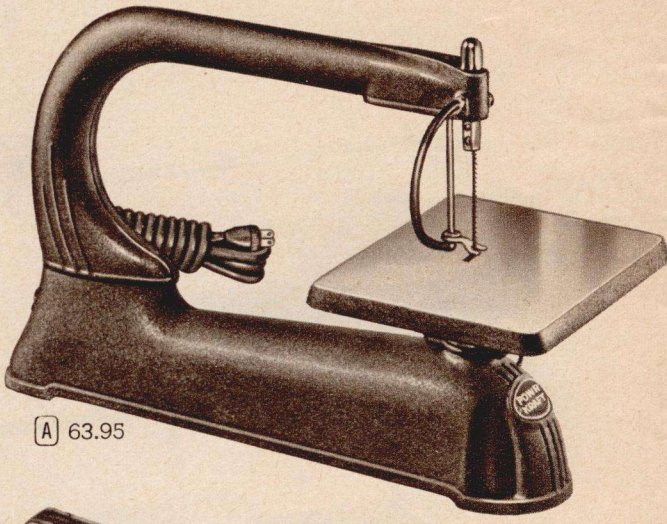


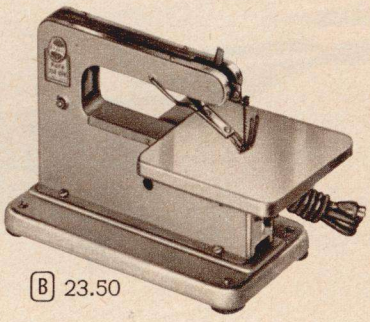


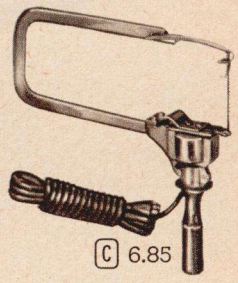












The Jig Saw

For Inside or Outside Curved Cutting

The jig-saw is the most satisfactory of all tools for cutting intricate designs. It is also one of the lowest priced power tools to purchase and one of the easiest of all to operate. Ideal for the beginner in woodworking, or for starting children in the hobby. Does finer, smoother work than the band saw—but is slower and not as satisfactory for making long straight cuts. Many types of blades are available for cutting metal, plastic, and other special purposes. Some of these are shown on Pages 4 and 17.

Capacity is based on the distance from the saw blade to the opposite point on the saw arm. This determines width of stock your saw will take. For example, a 15-in. jig-saw will saw to the center of a panel 30-in. wide. Popular workshop sizes are: 8 to 12½-in. (small), 15-in. (medium) and 24 to 26-in. (large). Remember, you'll never regret choosing a large capacity saw now—big enough for any future projects you may undertake.

PUTTING THE JIG-SAW TO WORK. Pictures above illustrate six types of work that jig-saws will do. (1) Inside curve cutting—drill hole in stock at starting point. Insert blade, lower blade guide and hold-down to prevent lifting of stock. (2) Outside cutting—just lower blade guide and hold-down against stock. (3) Angle cutting up to 45° (can be done with most models)—tilt table to desired angle and lower blade guide and hold-down. (4) Multiple cutting—use clamps or tacks to hold stock tightly as one unit. Raise blade guide and hold-down to insert stock—proceed as above. (5) Ripping long stock—can be done on models with adjustable chucks—rotate to 90°. Not fast but does the job. (6) Metal cutting with special blade—efficient at lower speeds only. Other jig-saw operations include saber-sawing, filing and sanding.

JIG SAWS ARE AVAILABLE IN THREE MAIN TYPES, according to principle of operation: "V" Belt-Driven, Built-in Rotary Motor and Magnetic Vibrator types are among the latest, proven jig-saw designs in use.

"V" BELT-DRIVEN jig saws are powered by externally mounted electric motors, connected to the saw by means of belt and pulley. Power is transmitted to the blade through an eccentric system, such as cam or crankshaft. Spring in upper arm of saw maintains constant blade tension. Gives best cutting at speeds from 850 to 1000 strokes per minute. To find the number of strokes per minute using 1725 RPM motor, multiply RPM by diameter of motor pulley and divide by diameter of jig-saw pulley. These jig-saws are recommended for use by critical hobbyists, skilled craftsmen.

BUILT-IN ROTARY motor types are operated directly from drive shaft of motor—no pulleys or belts are needed. Rotary movement of motor is converted to up and down motion through an eccentric cam or crankshaft arrangement. Jig-saws with these rotary type motors operate with maximum efficiency at speeds producing about 1000 to 3500 strokes per minute. Recommended for both craftsmen and workshop hobbyists.

MAGNETIC-VIBRATOR type jig-saws completely eliminate electric motors and drive systems. In place of motors, a self-contained magnetic unit delivers power to the saw blade through a diaphragm. Require higher speed (about 7200 cutting strokes per min.) to produce adequate cutting power. Economical, easy to operate. Ideal for light work.

Fast Cutting Self-Powered

POWR-KRAFT BUILT-IN ROTARY MOTOR 18-INCH JIG SAW 63.95

A POWR-KRAFT ROTARY JIG-SAW. 18-in. capacity—cuts to center of 36-in. circle. Recommended for home workshop use. Built-in rotary type motor develops torque equivalent to ¼-HP motor. Produces 1900 strokes per minute. Cast-iron over-arm is removable for work with saber blades and jig-saw files . . . unlimited capacity for these two operations. For 110–120 volt, 60 cycle AC or DC. Read information on jig saws at left.

Cuts soft wood and other materials up to 2 in. thick. Roller type blade guide and adjustable spring hold down. Chucks take 6-in. plain-end blades or sanding sticks and files with ¼-in. shank diameters. Cast-iron base and smooth table top. Table tilts 45° for angle cutting and rotates 360°. UL Approved.

Features: Built-in work light, sawdust blower and toggle switch. Size: 29½x 12¾x18 in. high. With rubber-covered cord, plug, 6-in. plain-end blade. See additional jig-saw specifications on opposite page. Made in Canada; shipped from Stock. Ship. wt. 50 lbs. Details of Credit Terms on Page 32.

84 KR 2370 MO—*Mailable.* $6.50 Down on Terms.....Cash $63.95

84 KR 2387—Extra 6-in. Plain End Blade Assortment. Ship. wt. 5 oz. . .12 for 45c

DREMEL SELF-POWERED SAWS 6.85 AND 23.50

B DREMEL ROTARY JIG-SAW. 8-in. capacity—cuts to center of 16-in. circle. An excellent saw for beginners. New guard design for protection of fingers. Built-in rotary motor with Dremel "rocker-action" eliminates blade buckle and tension-whip. About 3450 strokes per minute.

Cuts up to 1½-in. soft wood, ¾-in. plywood. Four-way blade holder gives unlimited ripping capacity. Table tilts 45°—raises or lowers to utilize each tooth on blade. For 110–120-Volt, 60 cycle AC. UL Approved. Rubber-covered cord, plug. For extra blades see above. Specifications on opposite page.

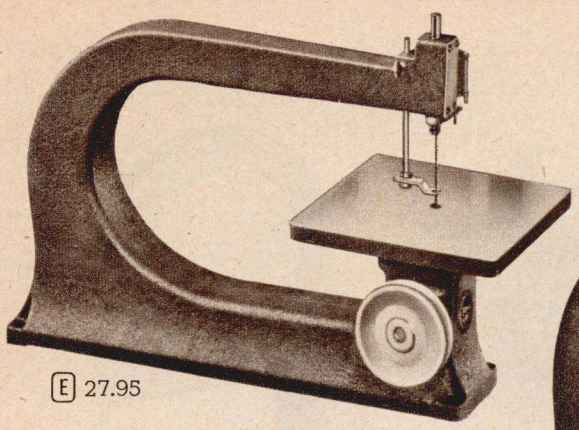
84 KRP 2390 M—With three 3-in. Pin End blades. *Pstpd.* $2.50 Dn. Cash $23.50

C DREMEL MAGNETIC HAND COPING-SAW. 9½-in. capacity—cuts to center of 19-in. circle. Very good model for beginners, model makers, hobbyists. Spring action. Magnetic vibrator power—produces about 7200 cutting strokes per minute. Cuts up to ¾-in. stock many times faster than ordinary hand coping saw. Four-way blade holder lets you reverse or turn blade at right angles for unlimited lengths of work. Stroke adjusts 1/16 to ¼-in. Operates on 110–120 Volt, 60 cycle AC only. With rubber-covered cord and plug.

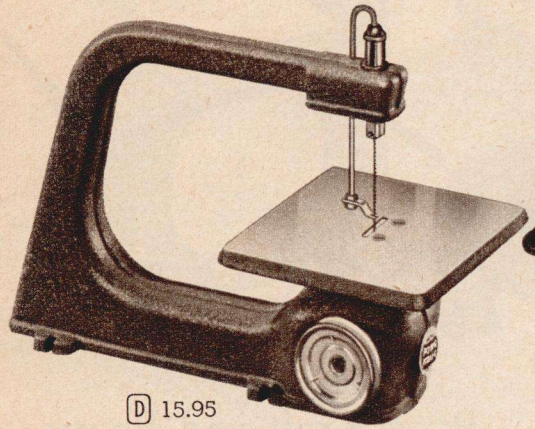
84 KRP 2398—Includes three 3-in. Pin-End blades. *Postpaid*.....$6.85

84 KRP 2399–3-in. Pin-End Blades. Fit B and C above. *Postpaid*.Pkg. of 12 for 60c

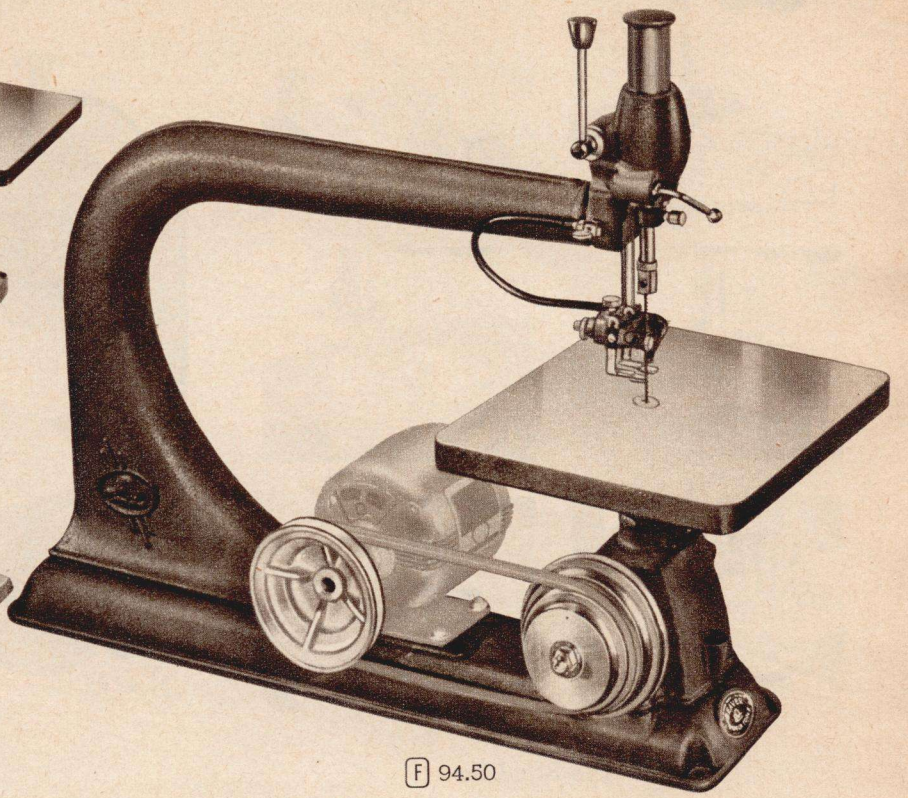
USING JIG SAWS FOR SABER SAW WORK. Jig Saws (A), (D) and (F) are adaptable to saber sawing and for using ¼ inch diam. shank files and sanding sticks. Saber blades make inside cutting easier because blade need not be removed from upper chuck for inside work—saves time and simplifies inside cutting. Files and sanding sticks enable you to use jig saw for fine finishing of delicate inside cut outs, scroll and fret work on either wood or metal.



(E) 27.95



(D) 15.95



(F) 94.50

and Belt-Driven Jig Saws . . . 8 to 24-Inch Capacity

12½-IN. POWR-KRAFT JIG SAW 15.95

(D) LIGHT-DUTY BELT DRIVEN MODEL. Ideal tool for beginners and hobbyists. Cuts to center of 25-in. circle. Cuts materials up to 1½-in. thick. Has ⅝-inch stroke. Produces about 860 strokes per minute. Bronze bearings. Ground cast-iron table is 9x9 in. Table tilts up to 45°—has tilt indicator, one piece cast semi-steel frame. Blade chucks rotate 90° for ripping long pieces.

Complete lower mechanism enclosed in oil bath. Eccentric cam operates on crosshead. Lower chuck takes ¼-in. diam. shank files, sanding sticks and saber blades. V-type blade guide and adjustable hold down. Upper torsion spring gives even blade stroke. Sawdust blower clears cutting line.

Dimensions overall: 9¾ in. wide, 21¾ in. long, 14½ in. high. Gray wrinkle finish. 5-in. plain-end blade included. For additional specifications see table below.

84 KR 2350 MB—Jig Saw only. *Mailable*. Ship. wt. 29 lbs. .$15.95

JIG SAW WITH ¼-HP SPLIT PHASE MOTOR (83 KR 4505MB, Page 26), 38-in. "V" belt, 2-in. diameter "V" motor pulley.

84 KR 2369 YO—Ship. wt. 50 lbs. $3 Down. . . . . Cash $27.95

JIG SAW SPECIFICATION TABLE

	Saw (A)	Saw (B)	Saw (D)	Saw (E)	Saw (F)
Depth of cut	2 in.	1½ in.	1½ in.	2 in.	2¾ in.
Blade type	Plain	Pin end	Plain	Plain	Plain
Blade length	6 in.	3 in.	5 in.	5 in.	5 to 7 in.
Blade guides	Roller	None	V-type	V-type	Roller
Table tilt.	45°	45°	45°	45°	45°
Mach. pulley	None	None	4 in.	4 in.	4-step
Blower	Built-in	None	Built-in	Built-in	Built-in

FOR TOOL STANDS TO FIT JIG SAWS SEE PAGE 28.

15-IN. POWR-KRAFT JIG SAW 27.95

(E) MEDIUM-DUTY BELT DRIVEN MODEL. Versatile tool, invaluable for hobbyists, skilled craftsmen and production work. Cuts to center of 30-in. circle; cuts material up to 2 inches thick. Approximately 860 strokes per minute. One piece cast frame, base. Ground cast-iron table is 9x9 in.; tilts to 45°. Pointer indicates angle of tilt on calibrated scale.

Lower mechanism is enclosed in oil bath; eccentric cam operates on crosshead. V-type blade guide foot also acts as hold down. Shafts are ground and polished to precise specifications. Heat-treated blade clamps. Blade tension is controlled by tension type and compression type springs on lower spindle. Piston-type blower attached to upper arm forces air on cutting line.

Dimensions overall; 9 in. wide, 23 in. long, 15¾ in. high. Gray wrinkle finish. 5-in. plain-end blade included with saw. For additional specifications see table at left. Ship. wt. 39 lbs. *Mailable*.

84 KR 2356 MB—$3 Down. . . .Cash $27.95

JIG-SAW WITH ¼-HP MOTOR (83 KR 4505 MB, listed on Page 26), 38-in. "V" belt, 2-in. diam. "V" motor pulley.

84 KR 2388YO—Ship. wt. 63 lbs . . .$39.95

24-IN. BEAVER JIG SAW 94.50

(F) HEAVY-DUTY BALL BEARING BELT DRIVEN MODEL. Professional quality tool meets requirements of critical craftsmen or production workers. Throat depth of 24 in. . . . cuts to center of 48-in. circle, to 2¾ in. thick. Ball bearing crank shaft runs in forced feed oil bath. Built-in sawdust blower. Blade tension adjusts to all types of plain end blades from 5 to 7-in. length. Tension shown on scale.

15x13-in. semi-steel table tilts up to 45°. Adjustable blade guide with blade thrust roller. Adjustable hold down. Upper housing easily removed for filing or saber sawing. Table and universal-type chucks on drive shaft and upper shaft rotate to 90° to accommodate long work. Lower chuck takes files and sanding sticks with ¼-in. diameter shanks, as well as saber blades.

Cast-iron base 7½ in. wide, 33 in. long. 4-step "V" machine and motor pulleys provide 450–800–1270 and 1965 strokes per minute. (Motor pulley fits ½ or ⅝-in. diam. shafts). Use 34-in. "V" belt (not included). Made in Canada, but shipped from Factory warehouse in Detroit, Mich. Allow 1 week. *Not Mailable*. Ship wt. 114 lbs.

84 KR 2371F—$9.50 Down. . . .or Cash $94.50

⅓-HP SPLIT-PHASE MOTOR (Complete description on Page 26). For Jig saw above.

83 KR 4506 MB—*Mailable*. Wt. 22 lbs. . .$12.95

YOU MAY PAY AS LITTLE AS 10% DOWN ON ORDERS OF $20 OR MORE—SEE PAGE 32.

EXTRA PLAIN-END, PIN-END JIG SAW BLADES AND SABER BLADES 23c TO 85c

5-IN. PLAIN END BLADES. Fine quality steel. Ship. wt. pkg. 4 oz.

Cat. No.	Use for	Thick.	Width	Teeth	Price
(H) 84 KR 2375	Celluloid,	.016 in.	.035 in.	21	6 for 23c
84 KR 2376	Plastics,	.017 in.	.043 in.	18	6 for 23c
84 KR 2377	Wood, etc.	.020 in.	.070 in.	7	6 for 23c
(J) 84 KR 2381	Hard material	.016 in.	.034 in.	32	6 for 23c
84 KR 2382	General use	Assorted sizes			12 for 45c
(K) 84 KR 2380	Light woods	.010 in.	.045 in.	18	12 for 45c
(L) 84 KR 2378	Metal, Wood	.020 in.	.110 in.	10	6 for 23c
84 KR 2378	up to 1 in.	.020 in.	.110 in.	15	6 for 23c
84 KR 2379	(State teeth)	.020 in.	.070 in.	15	6 for 23c

SEE SPECIAL FILES FOR USE WITH JIG SAWS ON PAGE 4

(M) 5-INCH PIN END BLADES. Assortment of 12. Wt. 4 oz.

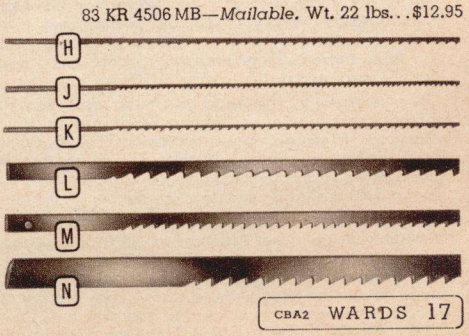
84 KR 2384. . . .Pkg. of 12 for 49c

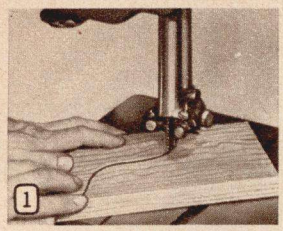
(N) 4½-INCH SABER BLADES. Hardened and tempered steel. Size .028 x .187 in. 10 teeth per inch. Ship. wt. 4 oz.

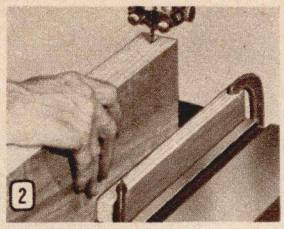
84 KR 2385. . . . .Pkg. of 3 for 23c

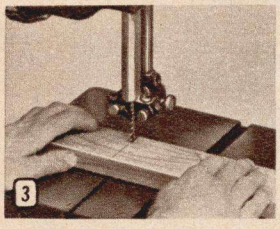
SABER BLADE ASSORTMENT. Shipping weight 4 oz.

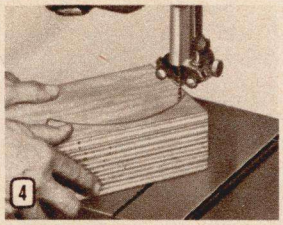
84 KR 2386. . . .Pkg. of 12 for 85c

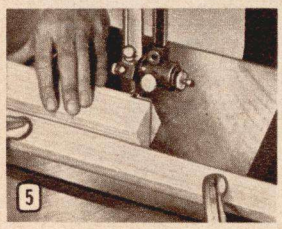


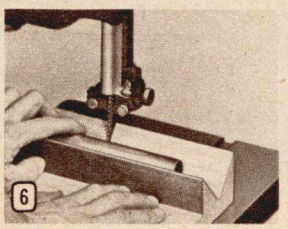


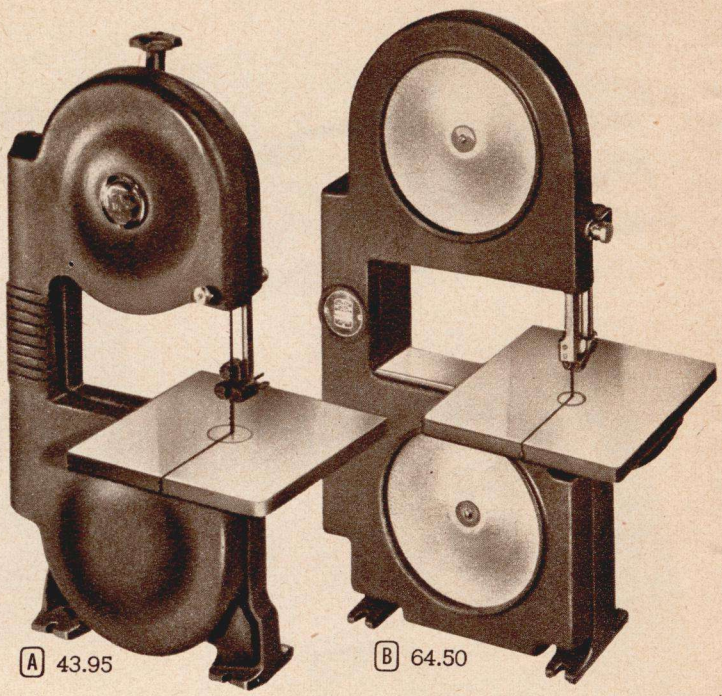












The Band Saw

Performs Many Intricate Sawing Operations

An especially useful tool if you have limited space or money to equip your shop. Many consider it the No. 1 tool if the majority of work will consist largely of cabinet or furniture making. The band saw's capacity and accuracy for heavy or deep cuts cannot be equaled by any other type of power saw. Wood cuts ranging in depth from a fraction of an inch to about 8 in. (on large saws) can easily be accomplished.

Pictures at top of the page show six typical uses of the band saw. Principal use is for cutting outside curves (Picture 1). When a narrow blade is used, the band saw approaches the jig saw in making small curves. Main advantage of the band over the jig saw is its ability to handle large capacity work (Picture 2) such as resawing (sawing of thick pieces of wood into thin boards). Crosscutting (Picture 3) can best be done by use of a miter gauge or free hand following a pencil line. Multiple sawing of identical pieces (Picture 4) is easily done by nailing pieces together in waste areas. For bevel ripping (Picture 5), tilt table top to desired angle. Ripping work requires use of rip fence. If rip fence is not available, one can be improvised from strip of wood held in place with C-clamps. Metal cutting with special blades (Picture 6) can be done on sheet metal or on heavier stock by reducing speed. Jigs should be used to keep material in place.

POINTS TO BE CONSIDERED WHEN SELECTING YOUR BAND SAW. An important consideration is its throat capacity (distance from blade to frame). Capacity is fixed by diameter of the wheels, since throat of the saw is the distance between forward vertical cutting section of the blade and protective covering which encloses rear vertical section of the blade. The capacity of the saw, therefore, is a fraction of an inch less than the diameter of the wheels. Depth of cut is distance between saw table and bottom edge of upper wheel covering. Popular capacities for home workshop are 9 to 10 in. (small), 12 in. (medium) and 14 to 15 in. (large).

IMPORTANT CONSTRUCTION FEATURES. The amount of service your band saw is going to receive is an important factor governing the type of bearings required. Bronze bearings supplemented by strategically placed ball bearings will provide excellent intermittent service for the home craftsman. When work requirements increase in duration and capacity, roller or ball bearings will withstand heavy-duty or production work.

A heavy, massive cast metal frame not only withstands the pounding of heavy-duty workshop use, but is also very important in keeping the blade true-running and the machine properly aligned. A tilting cast-iron table increases the versatility of the saw, allowing the operator to quickly and accurately perform bevel, chamfer and other fancy cuts.

A miter gauge, rip fence and miter gauge stop rods will make many cutting operations much easier. Stock can be quickly cut to any angle with a miter gauge. Ripping cuts can be made with the use of the rip fence. The fence can be quickly adjusted so that stock can be ripped to any desired width. In some cases these accessories are included with your saw or are available as extra accessories.

Many types of band saw blades are available which greatly increase the utility of the saw. Although a single blade for general work can be used satisfactorily, there is a right blade for every specific type of work. The most important saw blade characteristic which determines what blade should be used is its width. Choose a blade for cutting the sharpest curves you will cut. Use the widest blade that will do the job. For straight cuts use widest blade.

Powr-Kraft and Beaver

MEDIUM-DUTY BAND SAWS 43.95 AND 64.50

(A) (B) For hobbyists and home craftsmen. Cast-iron frame with one-piece hinged cast-aluminum guard; fastens with single knob. Cast-iron table tilts to 45° on firm locking trunnion; locks at any angle; adjustable pointer indicates degree of tilt. Adjustable hardened steel blade guides above and below table; upper guide is roller type. Positive blade tension adjustment. Soft metal table insert. Gray wrinkle finish. See specifications below.

(A) 9-INCH BAND SAW. Rubber-tired spoke wheels. Upper wheel has tension and blade trackage control. Runs smoothly on strategically placed ball and bronze bearings. Size overall: 11x16½x28 in. high. Ship. wt. 58 lbs. *Mailable.*

84KR2320 MO–$4.50 Dn.; Cash $43.95

BAND SAW (A) ABOVE WITH ⅓-HP MOTOR (83KR4506MB, Page 26); 2-in. diam. motor pulley; 44-in. V-belt. Ship. wt. 82 lbs. *Mailable.*

84KR2321YO–$6 Down; Cash $55.95

(B) 10-INCH POWR-KRAFT BAND SAW. Die-cast wheels with rubber tires, mounted on 4 anti-friction needle roller bearings. Size overall: 10½x 18¼x30¾ in. Order motor below, belt and pulley separately from Page 28. *Mailed* promptly from Chicago Factory; pay postage charges from there. Ship. wt. 50 lbs.

84 KR 2304K–$6.50 Down; Cash $64.50

⅓-HP SPLIT-PHASE MOTOR for (B). See Page 26 for complete description.

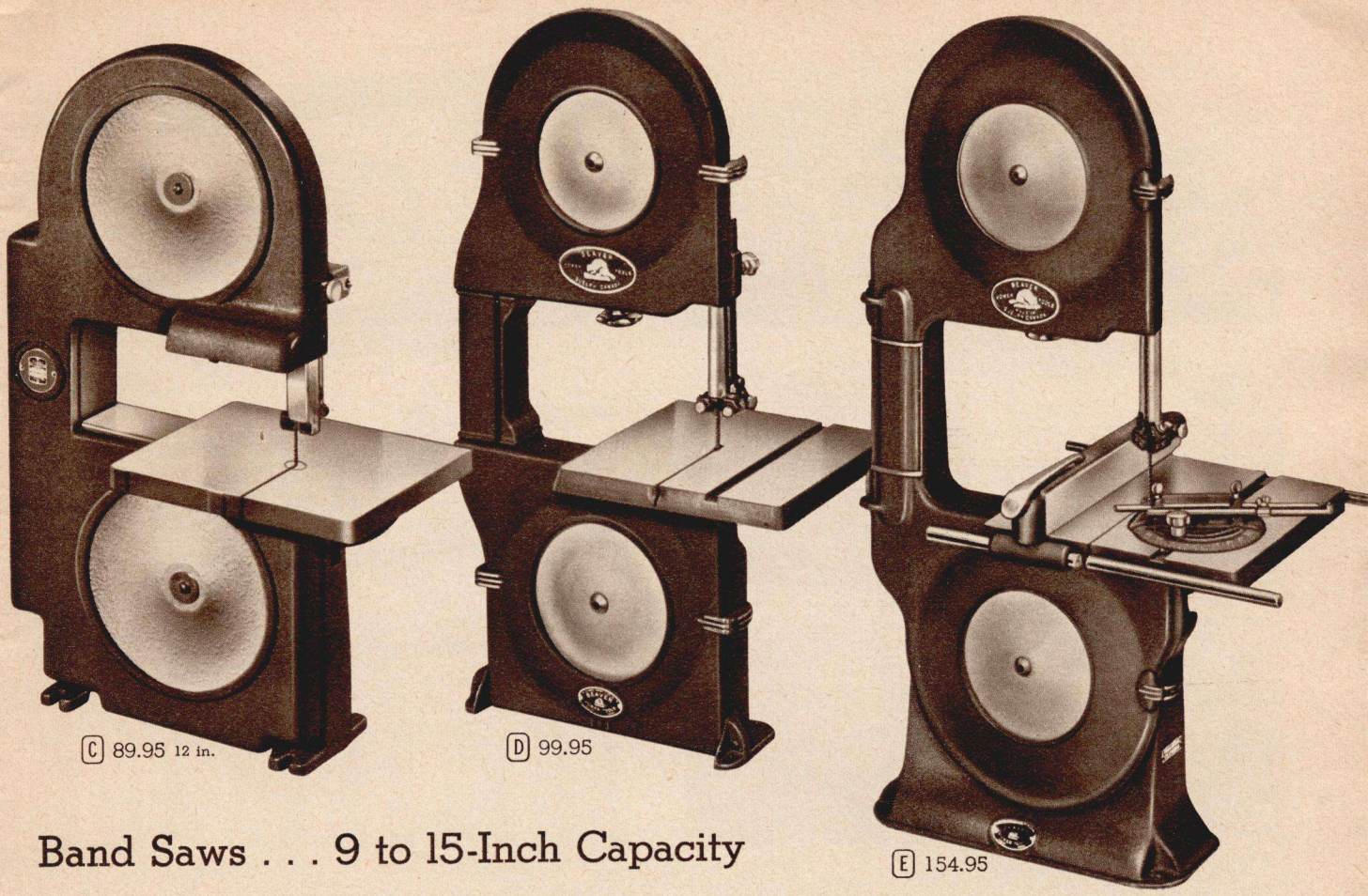
83 KR 4506 MB–Ship. wt. 22 lbs.$12.95

BAND SAW SPECIFICATIONS

Catalog Number	(A) 84 KR 2320MO	(B) 84 KR 2304 K	(C) 84 KR 2314 R	(C) 84 KR 2315 F	(D) 84 KR 2344 F	(E) 84 KR 2345 F
Capacity	9 in.	10 in.	12 in.	15 in.	12 in.	14 in.
Depth of Cut	4¼ in.	4⅝ in.	5⅛ in.	8 3/16 in.	5 in.	7½ in.
Table size	10x11 in.	10x10½ in.	13x13 in.	15x15 in.	15x12 in.	15x15 in.
Bearings	Ball, Bronze	Roller	Roller	Roller	Ball	Ball
Trunnions	Single	Double	Double	Double	Single	Single
Wheel Diam.	9⅜ in.	10⅝ in.	12½ in.	15¾ in.	12⅞ in.	14⅜ in.
Includes Blade	3/16x60 in.	¼x68 in.	¼x78 in.	⅜x104 in.	¼x85 in.	¼x101 in.
Takes Blades	⅛ to ½ in.	⅛ to ⅜ in.	⅛ to ⅜ in.	⅛ to ½ in.	⅛ to ½ in.	⅛ to ½ in.
With Saw Pulley	4-in. diam.	4-in. diam.	6½-in. diam.	6-in. diam.	8-in. diam.	
RECOMMENDED FOR USE WITH:						
Motor	⅓ HP	⅓ HP	⅓ HP	½ HP	⅓ HP	½ HP
V-Belt	44 in.	46 in.	54 in.	56 in.	52 in.	58 in.
Motor Pulley	2-in. diam.	2-in. diam.	2½-in. diam.	2½-in. diam.	4-in. diam.	4-in. diam.
Stand	84 KR 2962 MB	84 KR 2962 MB	84 KR 2962 MB	84 KR 2961MB	84 KR 2957 KB	84 KR 2957 KB

FOR STANDS TO FIT BAND SAWS, SEE PAGE 28

BAND SAW HINT: A good general rule for checking correct blade tension is to keep blade just tight enough to produce a low tone when it is struck.



Band Saws . . . 9 to 15-Inch Capacity

POWR-KRAFT BAND SAWS 89.95 AND 129.95

HEAVY-DUTY MODELS. Precision engineered to give accuracy and efficiency in every band saw operation. Compare most favorably with points to be considered on preceding page. Cast-iron frame with one-piece hinged guard, swings open and fastens shut with single knob. Upper wheel mounting separate from main frame.

Large cast-iron table mounted on heavy double trunnions, tilts to 45°. Wheels mounted on four needle type anti-friction bearings. Concave ball bearing roller blade guides above and below table, rotate with blade, eliminate friction and prevent grooving. Built-in work light throws illumination directly on work; complete with bulb and cord. Gray wrinkle finish. See band saw specifications listed in table at bottom of preceding page. Shipped promptly by Freight or Truck.

(C) 12-IN. POWR-KRAFT BAND SAW. Heavy-duty model. Runs smoothly on needle roller bearings. Deep throat permits cutting to center of 24-in. circle. Cuts material up to 5⅛ in. thick. Height overall 35½ in. Shipping weight 118 lbs. Shipped promptly from Stock.

84 KR 2314 R—$9 Down on Terms..... or Cash $89.95

12-IN. BAND SAW WITH ⅓-HP MOTOR. (83KR4506 MB, Page 26), 2½-in. diam. motor pulley, 54-in. V-belt

84 KR 2311R—Ship. wt. 142 lbs. $10.50 Dn., Cash $101.50

(C) 15-IN. POWR-KRAFT BAND SAW. Has all the heavy-duty features listed above, plus greater capacity. Cuts to center of 30-in. circle; easily cuts material up to 8 3/16 in. thick. Height overall 44½ in. Order motor separately below, motor pulley and V-belt from Page 28. Shipped promptly from Factory in Chicago, Ill.; pay freight from there. Ship. wt. 155 lbs.

84 KR 2315 F—$13 Down on Terms .....or Cash $129.95

½-HP POWR-KRAFT CAPACITOR MOTOR for 15-in. band saw above. See (C), Page 26 for complete description.

83 KR 4541MB—*Mailable*. Ship. wt. 28 lbs..... $24.50

PROFESSIONAL QUALITY HEAVY-DUTY BEAVER BAND SAWS 99.95 AND 154.95

(D) (E) Built to meet most exacting professional requirements. Designed by industrial engineers with years of experience in the construction and operation of professional woodworking tools. Precision manufactured to rigid specifications by a Canadian firm which has established an enviable reputation for unsurpassed quality. Preferred by many cabinet makers and in small millwork plants where rugged construction, large output and close tolerances are essential. For the advanced craftsman, or for the hobbyist who wants the finest professional quality band saw available, we strongly recommend Beaver Band Saws.

Large capacity models that can consistently produce at rated maximum capacity. Massive cast construction withstands rugged everyday use, protecting working parts and keeping saw perfectly aligned. Cast-aluminum rubber-tired saw wheels mounted on double grease-sealed ball bearings, balanced and interchangeable. Upper wheel adjustable for true blade tracking and spring-loaded for blade tension. Semi-steel table mounted on cast-semi-steel trunnion tilts 45° to the right, 10° to the left; adjustable angle of tilt indicator, positive stop for returning to true horizontal position. Gray wrinkle finish. Shipped directly to you from Factory Warehouse in Detroit, Michigan. Pay freight from there. Allow one week extra time for Warehouse handling.

(D) 12-IN. BEAVER BAND SAW. Heavy-duty production model. Cuts to center of 24-in. circle, up to 5 in. thick. Grease-sealed double ball bearings. Hardened steel roller and side guides are adjustable. 3-piece cast-iron frame. Machined groove for miter gauge (not included).

6-in. diam. machine pulley of cast semi-steel, machined and balanced to act as flywheel for smoother operation. Completely covered, permitting drive from behind or below. Cast semi-steel table 15x12 in., extends 7½ in. ahead of blade. Size overall 15x22x37½ in. Base size 16x5½ in. With ¼x85-in. saw blade. Order motor separately below; 52-in. V-belt and 4-in. V motor pulley from Page 28. Ship. wt. 90 lbs. For extra blades order 85-inch lengths from 84 KR 2331K below.

84 KR 2344 F—$10 Down.....Cash $ 99.95

⅓-HP POWR-KRAFT CAPACITOR MOTOR for saw (D). See Page 26 for description.

83 KR 4540 MB—Ship. wt. 27 lbs... $ 21.95

(E) 14-IN. BEAVER BAND SAW. Cuts to center of 28-in. circle, up to 7½ in. thick. Grease-sealed double ball bearings. Interchangeable upper, lower saw guides have adjustable tilted ball bearing thrust guide, hardened steel side guides. Cast aluminum frame. Rip fence made of cast semi-steel, 18½ in. long, 2½ in. high, can be used on both sides of blade. Both ends lock with single locking lever. Miter gauge graduated 60° with extension stop rods. 8-in. diam. machine pulley, cast semi-steel, machined and balanced to act as flywheel for smoother operation. Drives from below or behind.

Cast semi-steel table 15x15 in., extends 8½ in. ahead of blade. Soft metal insert. Size overall 20¾x 30x45 in. Base size 19½x8½ in. With ¼x101-in. saw blade, miter gauge, rip fence. Order motor separately below, 4-in. diam. motor pulley and 58-in. V-belt from Page 28. For extra blades order 101-in. lengths from 84 KR 2331K below. Ship. wt. 123 lbs.

84 KR 2345 F—$15.50 Down..... Cash $154.95

½-HP POWR-KRAFT CAPACITOR MOTOR FOR ABOVE. See Page 26 for complete description.

83 KR 4541 MB—*Mailable*. Ship. wt. 28 lbs.... $ 24.50

(F) WOODCUTTING BAND SAW BLADES. Welded endless. ⅛, 3/16, ¼ or ⅜-in. widths. 68-in. length *mailed* from Chicago Factory. *State width, length.* Ship. wt. 8 oz.

84 KR 2330—60-in. lgth. 85c; 78-in. lgth..89c

84 KR 2335 K—68-in. length.....87c

METAL-CUTTING BAND SAW BLADES. Welded endless. ⅜-in. width. Pay postage from Detroit Factory. *Mailed* promptly. Wt. 8 oz.

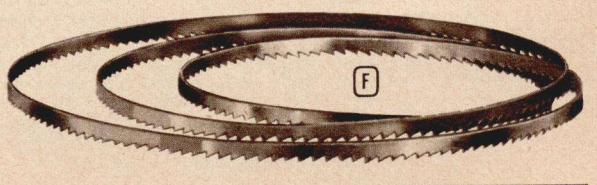
84 KR 2332 K — 60 in. $1.95; 68 in. $2.10
78 in. $2.25; 101 in. 2.75; 104 in. 2.85

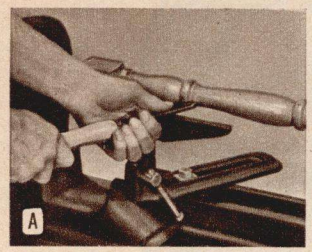
BAND SAW BLADES PER FT. For wood. Made endless to order; add 35c for each weld to make endless. *Mailed* promptly from Factory near Boston, Mass. *State width and length.*

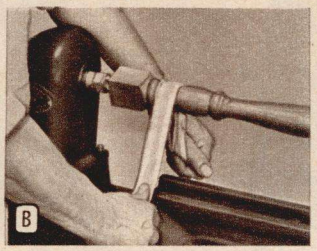
84 KR 2331K—Ship. wt. per ft. 1 to 3 oz.

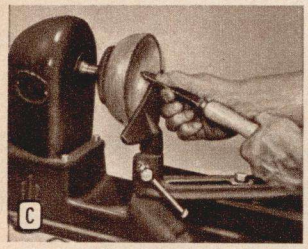
¼ in...12c; ⅜ in....14c; ½ in...16c
⅝ in...19c; ¾ in....20c; 1 in...21c
1¼ in.....27c; 1½ in.....35c

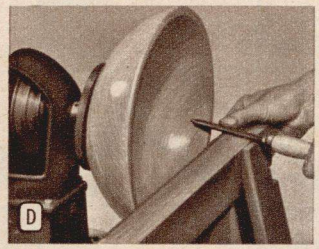
BAND SAW HINT. Loosen tension on the blade when saw is not being used.

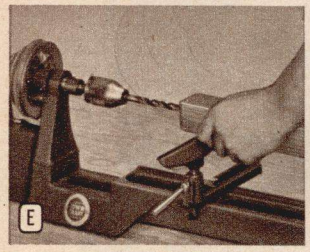


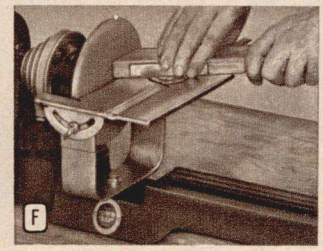


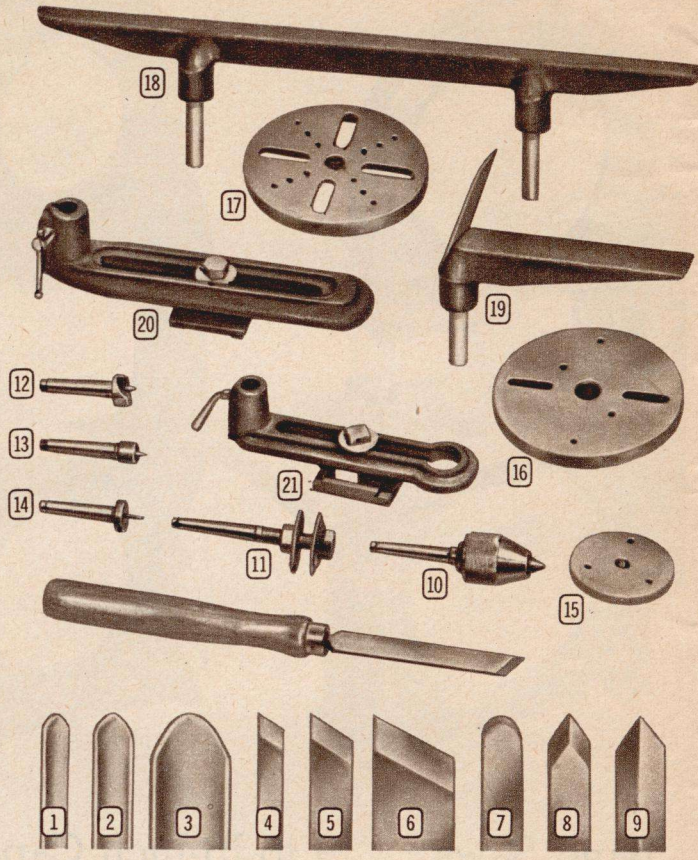












Facts to Aid You in Choosing a Wood-Turning Lathe

WOOD LATHE—ONE OF THE BASIC WOODWORKING TOOLS

The wood-turning lathe is a link between machine and hand tools, as it combines the art and skill of hand-tool work with the mechanical movement of the lathe. It is one of the most satisfying tools for the beginner and expert alike. The lathe can be used to perform a vast number of woodworking jobs. Although used primarily for basic wood-turning of long or short pieces between centers, its usefulness can be increased with the wide variety of accessories such as a chuck attachment, wheel arbor for holding grinding and buffing wheels, etc. A complete unit, capable of producing finished work it is a "must" for the woodworker who plans to turn down square stock into cylindrical forms such as table legs, lamp bases and other similar workshop projects. With ordinary care, it will give years of service.

Two capacities should be considered in selecting a lathe. First is distance between centers, measured from headstock to tailstock this determines the length of stock that can be handled. Second is swing over bed which determines diameter of work that can be turned. Most popular size lathes for home workshops are 24 to 27 inch between centers (small), 28 to 31 in. between centers (medium), and 32 to 40 in. between centers (large). Consider swing and distance between centers and select a lathe that meets your needs.

SIX TYPICAL WOODTURNING LATHE OPERATIONS

(A) Shows a spindle being turned between centers of a lathe. This operation is used in making stair balusters, table legs, lamp bases, etc.

(B) Shows operator doing finishing work on the turned piece. While in lathe the turned piece can be sanded and polished without removing it. This saves time and simplifies finishing of finely worked pieces.

(C) Shows inboard turning with stock mounted on face plate; small-diam. work (limited by swing over bed) such as bowls, knobs and saucers can be turned using the lathe in this way.

(D) Shows lathe operator doing outboard turning on large-diameter stock too large for inboard turning. The lathe operator is using a saw horse for a tool rest. This operation is possible on many lathes—such as (26) and (28) on opposite page.

(E) Shows lathe with chuck and drill bit attached for drilling. Chuck attachments accommodate round shank drill bits and let you drill right at lathe. Tool rest or tail stock may be used as a support for work being drilled. Chuck may also be used to hold small-diam. pieces for turning.

(F) Shows lathe being used as a disc sander. With this arrangement, lathe may be used for sanding most work. Disc sanding attachments with tilting tables are available on opposite page. A disc sander may be improvised with a face plate and plywood disc to which abrasive sheets are attached.

Other accessories listed above at right bring more uses to your lathe. A wheel arbor placed in the headstock spindle will accommodate various types of grinding wheels, cloth buffing wheels, wire brushes, etc. for a wide variety of grinding, polishing and buffing operations. Extra tool rests and a variety of chisels are also available to make your lathe operation easier and more interesting.

Powr-Kraft and Beaver

CHISELS AND OTHER LATHE ACCESSORIES 89c TO 7.50

1 TO 9 WOOD TURNING CHISELS. Keen edged crucible steel blades about 4 in. long. Hardwood handles about 8 in. long. Wt. ea. 12 oz.

(1) 84 KR 2043—¼-in. gouge....$1.25
(2) 84 KR 2044—½-in. gouge.... 1.29
(3) 84 KR 2045—¾-in. gouge.... 1.45
(4) 84 KR 2046—¼-in. skew.....95c
(5) 84 KR 2047—½-in. skew.....98c
(6) 84 KR 2048—1-in. skew.....$1.35
(7) 84 KR 2050—Round nose..... 98c
(8) 84 KR 2049—Spear Point..... 98c
(9) 84 KR 2051—Parting tool.... 1.25

5-PIECE CHISEL SET. Includes (2), (3), (4), (5), (9) above.
84 KR 2052—Ship. wt. 3 lbs.....Set of five $4.95

8-PIECE CHISEL SET. Includes (1), (2), (3), (5), (6), (7), (8), (9).
84 KR 2053—Ship. wt. 4 lbs. 8 oz.....Set of eight $7.50

10 TO 14 LATHE ACCESSORIES. Fit No. 1 Morse Taper in Headstock or Tailstock.

	Accessory Description	Cat. No.	Ship. wt.	Each
(10)	Chuck center—takes up to ½-in. drills.	84 KR 2029	1½ lbs.	$1.89
(11)	Wheel Arbor—½x24 thread	84 KR 2026	12 oz.	1.10
(12)	Spur Center—For headstock	84 KR 2022	8 oz.	95c
(13)	Cup Center—For tailstock	84 KR 2024	8 oz.	89c
(14)	Screw Center—For headstock	84 KR 2028	8 oz.	$1.25

15 16 POWR-KRAFT FACE PLATES. For lathes (22) and (26). Accurately machined. For stock which can't be supported between centers.

(15) 84KR2030–3½-in. diam. Fits ½-in. unthreaded spindle. Ship. wt. 2 lbs.$1.35
84 KR 2031—3½-in. diam. Fits ¾-in. 16-thread spindle. Wt. 2 lbs.... 2.15
(16) 84 KR 2033–5⅞-in. diam. Fits ¾-in. unthreaded spindle. Wt. 3 lbs... 2.79
84 KR 2034—5⅞-in. diam. Fits ¾-in. 16-thread spindle. Wt. 3 lbs... 2.98

17 BEAVER FACE PLATES. For lathe (28). Wts. (6-in.) 2 lbs. 4 oz.* (3-in.) 1 lb.*
84 KR 2092 K—6-in. Outboard. Fits ¾x16 LH-thread spindle.....$3.35
84 KR 2091 K—6-in. Inboard. Fits ⅞x14-RH thread spindle..... 3.35
84 KR 2090 K—3-in. Inboard. Fits ⅞x14-RH thread spindle..... 2.25

18 19 TOOL RESTS. Heavy-duty castings. ⅝-in. diameter shank.
(18) BEAVER TOOL REST. Use holder (20) for lathe (28). Semi-steel.
84 KR 2097 K—Double post. 24 in. long. Ship. wt. 5 lbs.*.....$4.79

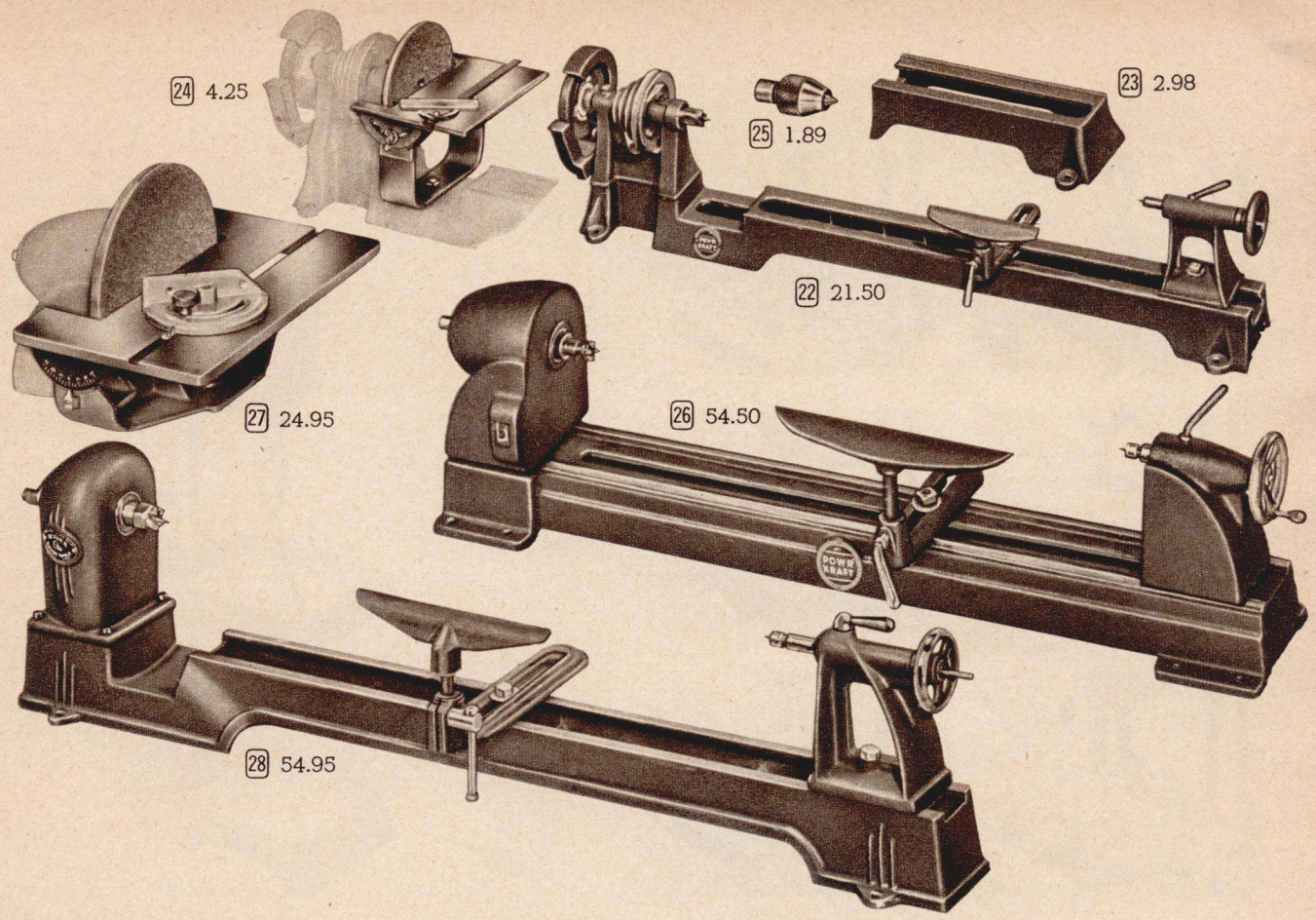
POWR-KRAFT TOOL RESTS (not shown). Cast iron. Fit lathe (26).
84 KR 2015 K—Single post. 12 in. long. Wt. 3 lbs. From Chicago Fact....$1.45
84 KR 2015—Double Post. 18 in. long. Ship. wt. 4 lbs. From Stock..... 2.59

(19) BEAVER RIGHT ANGLE TOOL REST. Fits lathe (28). Single post.
84 KR 2093 K—3-in. surfaces. Ship. wt. 5 lbs. 4 oz.*.....$2.55

20 21 TOOL REST HOLDERS. For ⅝-in. diameter shanks.
(20) BEAVER TOOL REST HOLDER. Fits rest (18) and lathe (28).
84 KR 2099 K—Ship. wt. 5 lbs. 4 oz.*.....$5.55

(21) POWR-KRAFT TOOL REST HOLDER. Fits 18-in. Tool Rest 84KR2015.
84 KR 2016—Ship. wt. 3 lbs. 4 oz.....$1.45

*Beaver Accessories with Cat. Nos. ending in "K" made in Canada; shipped promptly from Factory Warehouse in Detroit, Michigan.



Wood-Turning Lathes and Accessories . . . Only 10% Down

POWR-KRAFT HOBBYISTS' LIGHT-DUTY LATHE 21.50

22 27-INCHES BETWEEN CENTERS. Gap bed model with grinding wheel. Cast-iron flat bed, head, tailstock. Drive pulley mounted between self-lubricating bronze bearings; ball bearing to take up longitudinal thrust. Cast-iron adjustable tool rest 6 inches long. Four-step drive pulley for range of speeds from 775 to 3800 RPM. With plain ½ in. diam. head and tailstock spindle. Rigid base with holes for mounting to bench or power tool stand.

10-inch swing over 4 inches of bed, adequate for salad bowls, lamp bases, etc.—any work up to 10 inches in diameter. 8-inch swing over 23 inches. 27-inches total distance between centers. With tool rest, grinding wheel—sharpen your chisels without leaving the lathe. Gray wrinkle finish. Sander attachment, bed extension and chuck listed below increase the versatility and number of jobs you can do with this lathe.

84 KR 2002 MB—Ship. wt. 29 lbs. Only $2.50 Down on Terms.....Cash $21.50

LATHE (22) WITH DELUXE ⅓-HP SPLIT-PHASE MOTOR—110-120 Volt, 60-cycle AC-DC. (See motor 83 KR 4507 MB) Page 26). With 4-step motor pulley, 46-in. "V" belt.

84 KR 2000 YB—Ship. wt. 56 lbs. *Mailable.* Pay only $4 Down or Cash.....$39.95

23 LATHE BED EXTENSION. Increases distance between centers from 27 to 38 inches.

84 KR 2011—Ship. wt. 5 lbs. Cast iron. Fits Lathe (22) only. Milled joint.....$2.98

24 6-INCH DIAM. DISC SANDER ATTACHMENT. Fits headstock of lathe (22) to make it even more useful. Sheet-steel table tilts to 45°. Order 6-in. sanding discs on Page 39.

84 KR 2066—With miter gauge. Ship. wt. 4 lbs. 4 oz.....$4.25

25 ½-INCH DRILL CHUCK ATTACHMENT. Fits headstock spindle of lathe (22).

84 KR 2071—Makes lathe even more versatile. Ship. wt. 1 lb. 4 oz.....$1.89

POWR-KRAFT HEAVY-DUTY BIG CAPACITY LATHE 54.50

26 31 INCHES BETWEEN CENTERS. For advanced hobbyist or production shop. 10-inch swing over bed. Heavier, greater capacity than lathe above. Every detail of construction engineered to give top performance and extra-long service. ¾-inch 16-thread hollow spindle rides smoothly, quietly on New Departure precision ball bearings and self-lubricating bronze bearings. Bed has flat and "V" ways. Outboard turning (on ¾-in. unthreaded spindle) possible with face plate (see accessories on opposite page). Equipped with heavy 12-inch adjustable cast-iron tool rest. No. 1 Morse taper spur and cup center. May be driven from below or behind. Self-ejecting tailstock center. Guarded headstock for added safety, open in rear for belt—4-step machine pulley gives range of speeds from 780 to 3800 RPM. With ½x52-in. "V" belt, built-in toggle switch for wiring to motor. Sturdy cast-iron bed is 42½ in. long overall; 31 inches between centers. 10-inch swing over bed. Gray wrinkle finish. Use No. 1 Morse taper accessories.

84 KR 2004 R—*Not Mailable.* Ship. wt. 71 lbs. $5.50 Down on Terms.....Cash $54.50

LATHE (26) ABOVE WITH ⅓-HP SPLIT-PHASE MOTOR—Grease sealed precision ball bearings. (See motor 83 KR 4507 MB Page 26). With 4-step motor pulley.

84 KR 2014 R—*Not Mailable.* Ship. wt. 99 lbs. $7.50 Down on Terms.....Cash $71.75

27 10-IN. DIAMETER DISC SANDER ATTACHMENT. Fits (26) only. Cast-iron table tilts to 45°. With miter gauge. Shipped promptly from Chicago Factory.

84 KR 2068 KB—Ship. wt. 26 lbs. $2.50 Down on Terms.....Cash $24.95

BEAVER PROFESSIONAL QUALITY WOOD LATHE 54.95

28 36 INCHES BETWEEN CENTERS. Finest quality professional type lathe for heavy-duty production use. Precision built for long lasting, dependable service. Full 15-inch swing over 3-inch gap, 11-inch swing over ways; 9½-inch over tool rest. Fully machined ways; one-piece bed; semi-steel construction insures long life even under the hardest usage. Hollow spindle runs smoothly and quietly on grease sealed ball bearings. Streamlined headstock encloses 4-step "V" pulley and spindle. Spindle ground for No. 2 Morse taper accessories in front end; threaded ¾-in.-16 left-hand thread on back for outboard turning. With adapter and draw bar for No. 1 Morse taper accessories. Adapter threaded on front end ⅞-in.-14 thread to take spur center, face plate, etc. Draw bar prevents slippage of large work. Bed length overall 47¼ inches.

Tailstock takes No. 1 Morse taper accessories, is easily moved to position on ways. Steel barrel housing and friction clamp locks cup center in position. Hand wheel moves cup center 2 in. without moving tailstock. Tool rest base adjusts easily along bed for height and angle with friction clamp. Includes: draw bar, adapter, spur and cup center, wrench, 4-step motor pulley to fit ½ and ⅝-in. diameter motor shaft, 46-in. "V" belt. 10-inch adjustable cast-iron tool rest. For additional accessories see opposite page. Shipped promptly from Warehouse in Detroit. Beaver tools made in Canada.

84 KR 2098 KO—Ship. wt. 64 lbs. *Mailable.* $5.50 Dn. Cash $54.95

⅓-HP 1725 CAPACITOR MOTOR. (See Page 26). For Beaver Lathe.

83 KR 4540 MB—Ship. wt. 27 lbs. $2.50 Dn. or Cash.....$21.95

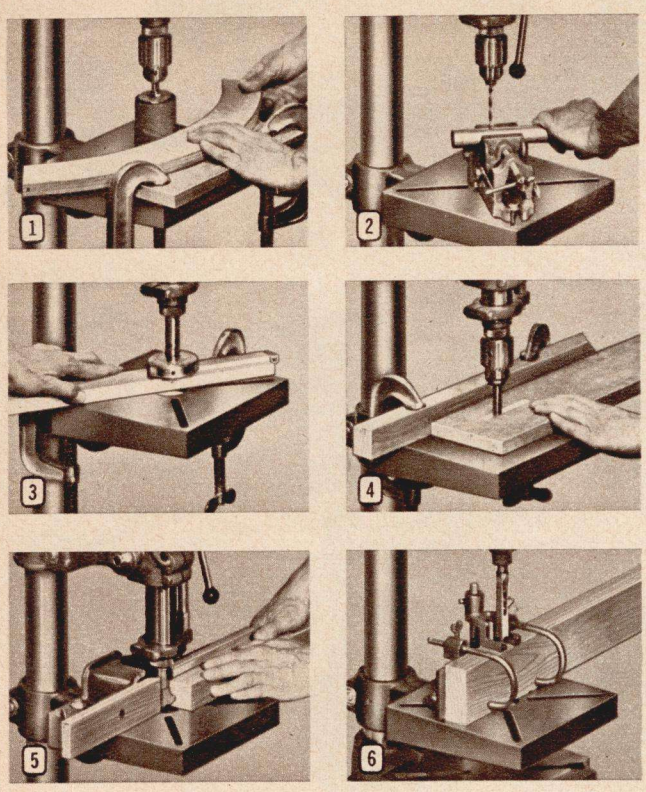
TOOL STANDS AND LEGS FOR ALL LATHES ON PAGE 28.

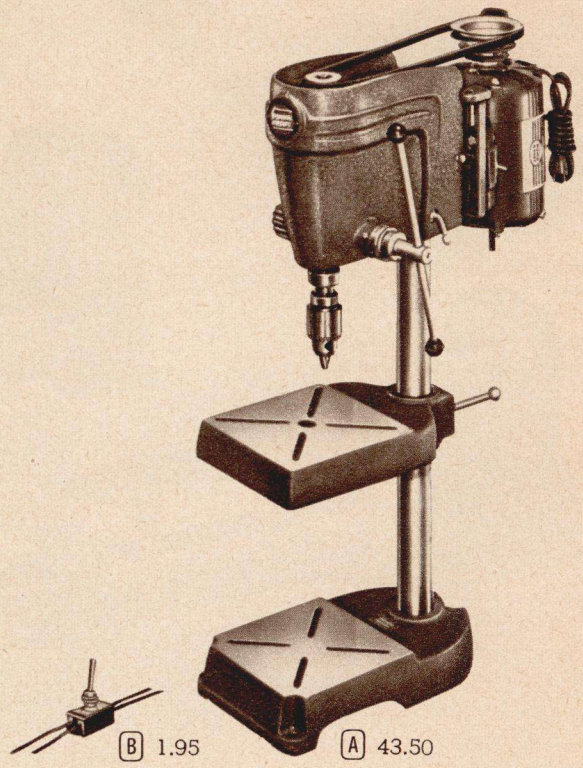
HINTS ON USING A WOODTURNING LATHE

SPEED: The 4-step pulleys on lathes give you a variety of speeds; use the proper speed for job you are doing. For rough cuts use slower speeds; for smoother, finish cuts use higher speeds.

POLISHING: Use shavings from stock being turned for first step in finishing, this friction polishing naturally smooths the wood being turned and is an ideal first finishing step. Rasps and files may be used in same manner as woodturning chisels. A coarse rasp does a good rough job in minimum time, finer files are excellent for attaining smoother and finer cuts.

SAFETY: When putting stock in lathe first turn it by hand to be sure it clears ways and tool rest. Check centers to see that stock is firmly seated and be sure tailstock is secure before turning on power. When doing any cutting check tool rest height. Never wear a necktie or other loose apparel when using a lathe.





The Drill Press

One of the Most Versatile of Power Tools

Originally developed for drilling purposes only, the Drill Press has now become a multi-purpose tool capable of dozens of varied workshop operations such as routing, mortising, planing, grinding, etc. Of all single-use power tools, the drill press is most versatile. Multiple-step pulley arrangement gives it an exceptionally wide range of speeds, making it suitable for many types of operations on wood, metal, glass, plastics, etc. Dozens of accessories are available which make it one of the most useful of workshop tools.

Capacity of Drill Presses is usually expressed in terms of the diameter of the largest circle that can be center drilled, which is twice the distance from chuck to column. Thus a 15-inch drill press has a 7½-inch distance between chuck and column. Bench or Floor Model Drill Presses are available; bench models should be firmly bolted to bench or tool stand between 33 and 36 inches from floor, depending on operator's height.

CONSTRUCTION DETAILS. The heart of a drill press is its spindle construction. One of the best designs is a splined drive with free-floating spindle, and an independently mounted drive pulley which prevents belt tension from binding on spindle. Other points to look for when choosing a drill press are the kind of bearings it has and its general strength and rigidity and lack of vibration when running. Ball or roller bearing construction is necessary for heavy duty or continuous use, while bronze bearings give excellent service for light duty or hobbyist's operations. One of the best type of chucks is the Jacobs key chuck, which fits snugly on the tapered end of the spindle. It provides proper gripping power for greatest drilling accuracy. Ball bearing motors must be used on all drill presses, since motors are mounted in vertical position. ⅓ to ½-HP capacitor type motors are recommended. Tables on many drill presses can be tilted, allowing work to be drilled and tooled at accurate angles, adding to the versatility of the unit.

DOZENS OF USES. Shown above are six typical applications of the drill press in actual use: (1) drum sanding of curved surfaces; (2) metal drilling, showing use of drill press vise; (3) rotary surface planing with Barron planer; (4) routing with special bits; (5) shaping (recommended only on drill presses with full ball bearing or roller bearing construction), with one of the many types of molding cutters available; and (6) mortising with the special mortising head, chisel, bit and hold-down attachments. In addition to these there are dozens of other uses including: carving, boring, dove-tailing, countersinking, hole cutting, rabbeting, doweling, rotary filing, polishing and buffing, wire brushing, reaming, rotary grinding, etc. For accessories and attachments to make your drill press even more useful, see Page 24 for Wards complete line.

Wide selection of bits are available to fill every drilling need. High speed steel bits are used for high RPM drilling in hardened, tempered steels; carbon steel bits are used for low RPM drilling in soft metals and wood.

TABLE OF DRILLING SPEEDS. RPM's listed at right are for high-speed drills; divide by 2 when using carbon steel drills.

Drill Diam.	Alum. Brass	Cast Iron	Mild Steel	Mall. Iron	Tool Steel	Cast Steel
⅛ in.	9170	4584	3056	2745	1528	1220
¼ in.	4585	2292	1528	1375	764	610
⅜ in.	3056	1528	1019	915	510	407
½ in.	2287	1146	764	636	382	305

Precision-Built Powr-Kraft and

12½-IN. POWR-KRAFT DRILL PRESS 43.50

(A) MEDIUM DUTY BRONZE BEARING BENCH MODEL. Accurate to within .005 inch. Will perform all drill press operations described at left (except shaping), when used with proper accessories. Runs smoothly and quietly on oversize self-lubricating bronze spindle bearings; ball bearing absorbs end thrust. Drills to center of 12½-inch circle; maximum spindle travel 3¼ inches. Sturdy construction throughout with 2-inch diameter column.

Free-floating automotive type involute 9-spline spindle with No. 33 Jacobs tapered end. Spiral coil quill return spring. With 4-step machine pulley. RPM range 795, 1310, 2275 and 3750. Cast-iron head adjusts up and down on machine ground tubular steel column. Adjustable motor mount permits easy movement of motor horizontally and vertically for alignment of machine and motor pulleys. Table and base are diagonally slotted. Table can be swung out of way, and base used as auxiliary table for extra working capacity; table does not tilt. Gauge shows depth at any position of spindle. With ½-inch Jacobs key chuck. See specifications below. *Not Mailable.*

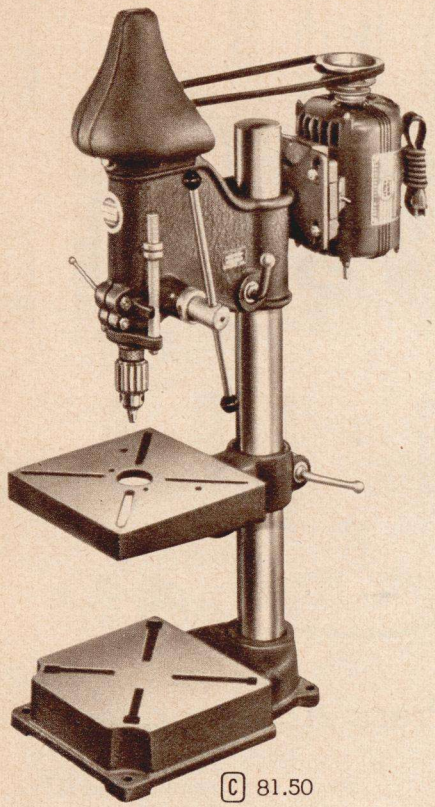
84 KR 2535 R—Drill Press only. Ship. wt. 82 lbs. $4.50 Down.....Cash $43.50

DRILL PRESS ABOVE WITH MOTOR. Includes: ⅓-HP 1725 RPM ball bearing capacitor motor (83 KR 4540 MB—on Page 26), 4-step pulley, 38-in. "V" belt.
84 KR 2537 R—Ship. wt. 110 lbs. *Not Mailable.* $7 Down.....Cash $65.50

(B) TOGGLE SWITCH. Fits in head of Drill Press (A) only. For use with motors up to 1-HP, 110–120 volts, AC or DC. UL approved.
84 KR 2536—*Mailable.* Shipping weight 8 oz.....$1.95

DRILL PRESS SPECIFICATIONS

Catalog Number	(A) 84 KR 2535 R	(C) 84 KR 2533 R	(D) 84 KR 2534 R	(E) 84 KR 2542 F	(E) 84 KR 2544 F
Drills to center of circle	12½ in.	15 in.	15 in.	16 in.	16 in.
Spindle travel	3¼ in.	4 in.	4 in.	4½ in.	4½ in.
Column diameter	2 in.	2¾ in.	2¾ in.	3 in.	3 in.
Height overall	33 in.	43½ in.	72 in.	70 in.	40 in.
Chuck to table	12½ in.	13 in.	43 in.	39¾ in.	11½ in.
Chuck to base	15½ in.	18½ in.	48½ in.	45 in.	17¾ in.
Spindle bearings	Bronze	Ball	Ball	Roller	Roller
Thrust bearings	Ball	Ball	Ball	Roller	Roller
RPM range	795–3750	673–4410	673–4410	600–4840	600–4840
Table tilts	Non-tilt	to 45°	to 45°	360°	360°
Table area, in.	8x8	10x10	10x10	12½x11¼	12½x11¼
Base table area, in.	8x8	10x10	12x12	11⅞x11	11⅞x11
Recommended stand (Page 28)	84 KR 2962 MB	84 KR 2962 MB	None	None	84 KR 2958 KB
Recommended V-belt (Page 28)	½x38 in.	½x42 in.	½x42 in.	½x46 in.	½x46 in.
Recommended motor pulley	84 KR 2895	84 KR 2896	84 KR 2896	Included	Included
Recommended motor	⅓ HP 1725 RPM Ball Bearing Capacitor (83 KR 4540 MB, Pg. 26)				



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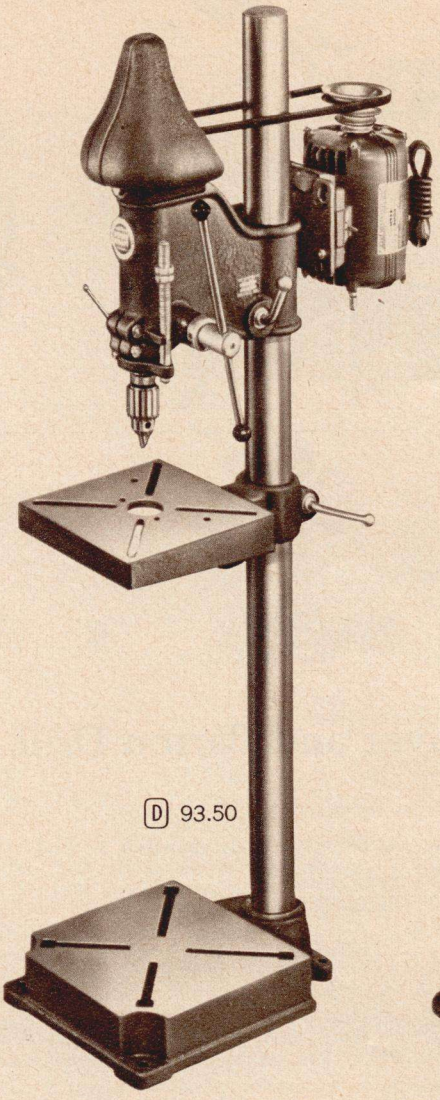

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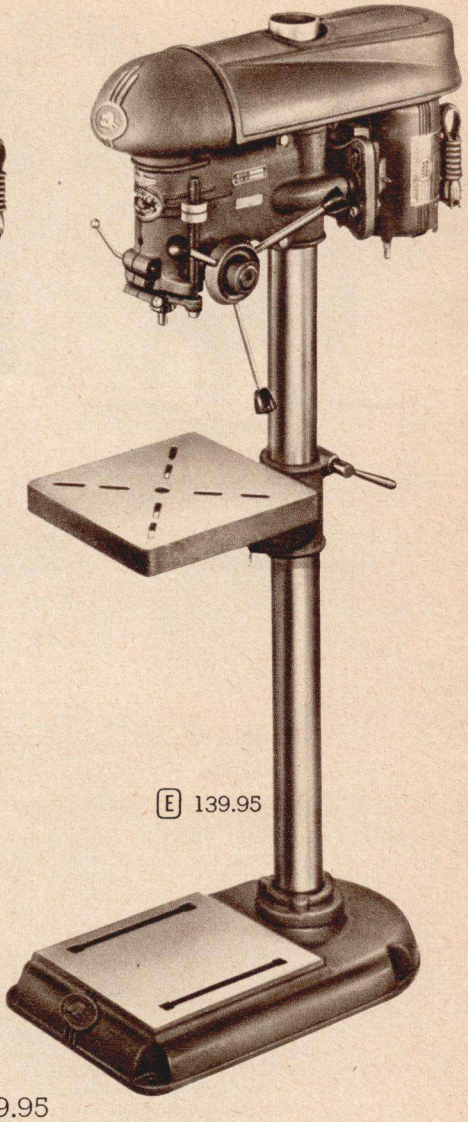

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Beaver Drill Presses

POWR-KRAFT DRILL PRESSES 81.50 AND 93.50

C D HEAVY-DUTY BALL BEARING MODELS. Built to rigid production-type specifications. Meet exacting standards . . . accurate up to .005 inch. Grease sealed New Departure ball bearings. Drill to center of 15-inch circle; maximum spindle travel 4 inches. Adaptable to mortising, routing, planing, shaping, etc.

Free floating automotive type six-splined spindle with No. 33 Jacobs tapered end. Spiral coil quill return spring. Cast-iron head adjusts up and down on tubular steel column. Motor mount adjusts horizontally and vertically. RPM range 673, 1280, 2330 and 4410. Table tilts up to 45° to left or right. Adjustable depth gauge and stop screw for duplicate drilling. Complete with 4-step machine pulley and ½-inch Jacobs key chuck. For complete specifications, see table on opposite page. *Not Mailable.*

C 15-INCH BENCH MODEL DRILL PRESS. Wt. 110 lbs.
84 KR 2533 R—$8.50 Down on Terms .Cash $81.50

BENCH MODEL DRILL PRESS (C) WITH MOTOR. Includes ⅓-HP ball bearing capacitor 1725 RPM motor (see description of 83 KR 4540MB on Page 26), 4-step motor pulley and 42-inch V-belt. Ship. wt. 137 lbs.

84 KR 2539 R—$10.50 Down on Terms. . .Cash $102.75

D 15-INCH FLOOR MODEL DRILL PRESS. Wt. 126 lbs.
84 KR 2534 R—$9.50 Down on Terms. .Cash $93.50

FLOOR MODEL DRILL PRESS (D) WITH MOTOR. Includes ⅓-HP ball bearing capacitor 1725 RPM motor (see description of 83 KR 4540MB on Page 26), 4-step motor pulley and 42-inch V-belt. Ship. wt. 153 lbs.

84 KR 2540 R—$11.50 Down on Terms. .Cash $114.95

BEAVER DRILL PRESSES 121.50 AND 139.95

E HEAVY-DUTY ROLLER BEARING MODELS. Professional quality tools for continuous production. Timken tapered roller bearings on spindle and pulley mounting give vibration-free operation. Drill to center of 16-inch circle; spindle travels 4½ inches.

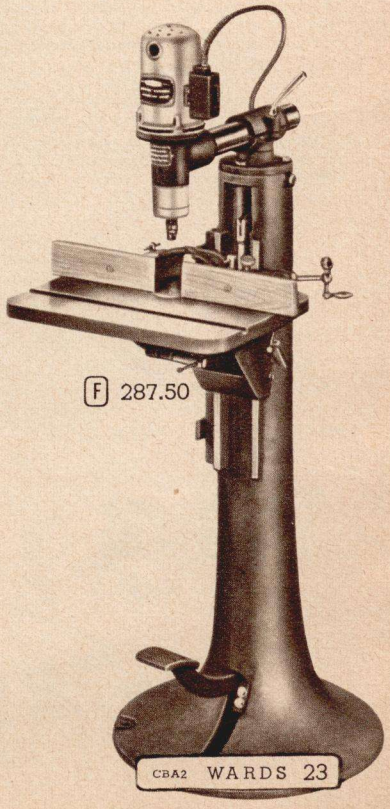
Six-splined spindle with No. 33 Jacobs taper end. Heads have adjustable motor mount brackets. Adjustable tension spring for quill control; adjustable stop for duplicate drilling. Three lever feed control handle.

Cast semi-steel table and base slotted for jigs and clamps. Table tilts to 180° in either direction; automatically sets at level position. Belt guard removable for changing speeds. With 5-step machine pulley and matching motor pulley (½ or ⅝-in. bore). Dark gray wrinkle finish. Without chuck—order (84 KRP 2589K) below, motor and V-belt separately. Made in Canada; shipped from Factory Warehouse in Detroit, Mich.; allow one week extra time. Ship. wts. 210, 185 lbs.

84 KR 2542 F—Floor Model. $14 Down, Cash. . . .$139.95
84 KR 2544 F—Bench Model. $12.50 Down .Cash 121.50

JACOBS SAFE-LOCK ½-IN. CHUCK. Fits Drill Press (E).
84 KRP 2589 K—*Postpaid* from Detroit Factory. . . $9.63

⅓-HP CAPACITOR MOTOR. Full description on Page 26.
83 KR 4540 MB—*Mailed* from Stock. Wt. 27 lbs. . $21.95



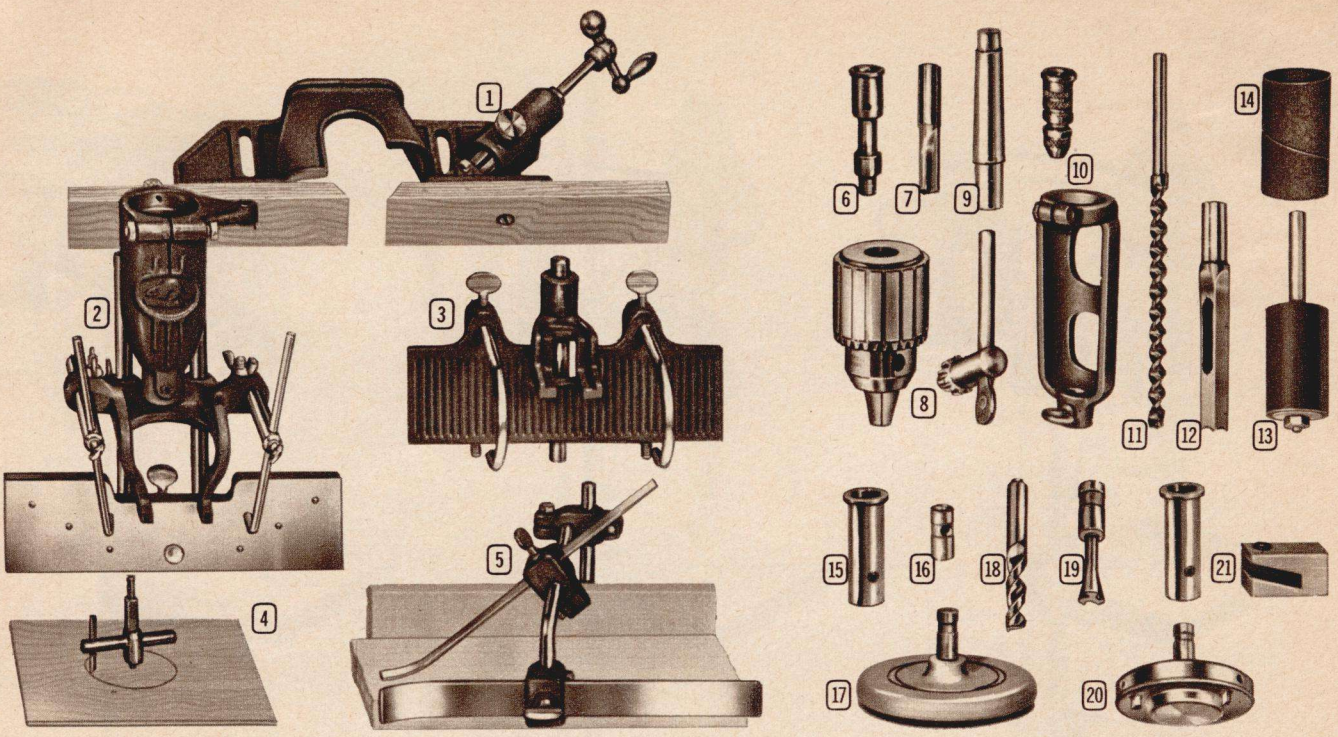
F 287.50

POWR-KRAFT 3-IN-1 ROUTER-SHAPER-CARVER UNIT . . . 287.50

F HIGH-SPEED BALL BEARING MODEL. For cabinet and carpenter shops, furniture factories, mills, model makers, etc. Use on plastics and aluminum as well as wood. Head easily changes positions in 30 seconds from vertical routing position to horizontal position for carving, or undertable position for shaping operations. Table, 18x14 inches, has machined slot for inserting miter gauge (not included). Foot pedal raises or lowers table 1⅜ inch per stroke—table moves up and down 8½ inches on machined dovetailed ways. Lock under table fastens motor to table for shaping. Lock on pedal slot holds table in raised position.

G.E. universal motor operates on 110–120-volt AC or DC, 60 cycles or less. Develops 1200 watts maximum output at spindle (746 watts equal 1 HP). No-load spindle speed of about 20,000 RPM provides smooth vibrationless cutting. Motor and spindle mounted on four New Departure Ball bearings. Propeller fan keeps motor cool. Includes: carving spindle (threaded ⅜ x 24) collet chucks for ¼ to ½ in. shank router bits; adapters for 5/16 and ½-in. shaper cutters; 6 guide pins; shaper fence. Size overall: 23½ x 55 in. Shipped promptly from Factory in Chicago by Freight or Express.

84 KR 2454 F—Ship. wt. 274 lbs. $29 Down.Cash $287.50



Powr-Kraft, Beaver and Barron Drill Press Accessories

VERSATILE AND EFFICIENT DRILL PRESS ACCESSORIES 35c TO 19.98

[1] SHAPER GUARD AND FENCE. Attaches to diagonal slots of drill press tables. Adapts drill press for straight cut shaping. One face adjustable forward or back with micrometer accuracy.

84 KR 2560 T—Hardwood faces. Wt. 9 lbs.... $8.75

[2] BEAVER MORTISING AND HOLD-DOWN ATTACHMENT. Fits Beaver Drill Presses. Has adjustable fence, hold-down shoes, and hold-in rods. Clamps to table of drill press; hold-down shoes hold work flat on table. Mortising head completely guards all rotating parts from operator. Fence adjusts for stock width. After securing base to table, loosen one thumb screw and fence slides smoothly in or out ... remains square to chisel; saves time and work when changing stock widths. Hold-down shoes adjust, quickly clamp in position. Gray wrinkle finish. Made in Canada, but *Mailed* promptly from Factory Warehouse in Detroit, Mich.

84KR2543K–Ship. wt. 16 lbs. $2 Down, Cash $19.98

[3] POWR-KRAFT MORTISING HOLD DOWN ATTACHMENT. Fits all Powr-Kraft Drill Presses. Fastens to table. Holds work securely, insuring straight cuts. Adjusts for stock 7/8 to 4 in. thick. Hooks adjust to 3½ in. wide. Fence 9 15/16 by 3 in.

84 KR 2538 T—Ship. wt. 6 lbs. 8 oz..... $3.98

[4] HANDY HOLE CUTTER. Hardened and tempered tool steel cutter. Accurately cuts round holes 7/8 to 4-in. diam. in steel, wood or plastic. Combination square and round shank.

84 KR 3656—Ship. wt. 12 oz..... $1.69

84 KR 3657—Extra blade for (4). Ship. wt. 2 oz.. 35c

[5] HOLD DOWN ATTACHMENT. Clamps to table. Adj. springs hold work flat and against fence. Long bars adjust to width and depth of work.

84 KR 2480—Ship. wt. 4 lbs..... $4.45

[6] SHAPER CUTTER ADAPTERS. Fit Powr-Kraft and Beaver drill presses (except 84 KR 2535R).

84 KR 2558 T–Fits 5/16-in.bore cutters. Wt. 4 oz. $1.45

84 KR 2559 T–Fits ½-in. bore cutters. Wt. 4 oz. 1.49

[7] SHOPSMITH ROUTER BITS. Hardened and tempered tool steel. Precision ground edges. ½-in. diam. shanks. *State:* ¼, 5/16, 3/8 or ½-in. cut.

84 KRP 3136—*Mailed Postpaid*..... Each $1.65

[8] JACOBS DRILL CHUCK. Jacobs No. 33 taper. Fits all Powr-Kraft drill presses. ½-in. cap.

84 KRP 2550 T–With chuck key. *Postpaid*... $8.56

[9] JACOBS ARBOR. *One end Jacobs 33 taper; other No. 2 Morse.

84 KRP 2551K—Fits chuck above. *Postpaid*. $1.10

[10] MORTISING HEAD AND CHUCK. Fits Powr-Kraft drill presses. Special bits drill hole, hollow chisel cuts corners square. Chuck takes ¼, 3/8 or ½ in. (84 KRP 3135) bits below only.

84 KR 2555 T—Fits 12½-in. Drill Press (A) on Page 22 and old No. 2530. Ship. wt. 4 lbs..... $3.98

84 KR 2556 T—Fits 15-in. Drill Presses (C) and (D) on Page 23. Ship. wt. 4 lbs..... $4.15

[11] [12] SHOPSMITH MORTISING CHISELS AND BITS. ¼, 5/16, 3/8 or ½-in. sizes. *State size.*

84 KRP 3135—Bits (11). *Postpaid*..... Each $2.45

84 KRP 3134—Chisels (12). *Postpaid*. . Each 3.50

[13] SANDING DRUMS. 3-in. sanding area. 1 5/8-in. size has adjusting nut. Wts. 1¼, 2 lbs.

84 KR 2548—1 5/8-in. diam., ½-in. shank.. $1.35

84 KR 2549—2 5/16-in. diam., 13/32-in. shank.. 2.19

[14] SANDING SLEEVES. For (13) above. *State grit.* FOR 1 5/8-IN. DIAM. DRUM. Ship. wt. 12 oz.

84 KR 2564—*Fine, Medium or Coarse*.. 6 for 98c

FOR 2 5/16-IN. DIAM. DRUM. *Postpaid.*

84 KRP 3133–*Fine, Med., Coarse or Asstd.* 6 for $1.25

BARRON ACCESSORIES 50c TO 8.50

Nationally known fine quality Barron accessories add versatility to your drill press. Items below with Catalog Number ending with "K" are *Mailed* promptly from Factory near Detroit, Mich.

[15] BARRON DRILL PRESS SPINDLE ADAPTER. Fits 33 taper spindle. For side thrust accessories.

84 KRP 2585 K—½-in. inside diam. *Postpaid*.. $1.25

[16] GRADUATED SLEEVES. ½-in. outside diam. Fit (15). Inside diameters 1/8, 3/16, ¼, 5/16, 3/8, 7/16 in. for holding straight shank tools of the same diam.

84 KRP 2586 K—*State size. Postpaid*..... Each 50c

[17] BARRON ROTARY SURFACE SANDER. ½-in. shank. Thick sponge rubber pad bonded to housing. 4-in. diam. 20 assorted discs included.

84 KRP 2583 K—*Mailed Postpaid*..... $6.50

[18] BARRON ROUTING, MORTISING BITS. Shank and cutting flutes same diam. *State size. Postpaid.*

84 KRP 2579 T—1/8 in., $1.55; 3/16 in., $1.75; ¼ in., $2.00; 5/16 in., $2.20; 3/8 in., $2.50; ½ in., $2.70

[19] BARRON DOVETAIL CUTTER. ½-in. diameter. For producing male and female dovetails.

84 KRP 2580 T—¼-in. shank. *Postpaid*..... $3.25

[20] BARRON ROTARY PLANER. Fits drill presses with Jacobs 33 taper spindles. Cast aluminum steel cutter body 3-in. diam. Drill press spindle adapter with Jacobs 33 taper to replace chuck.

84 KRP 2578 T—About 2¼-in. cut. *Postpaid*.. $8.50

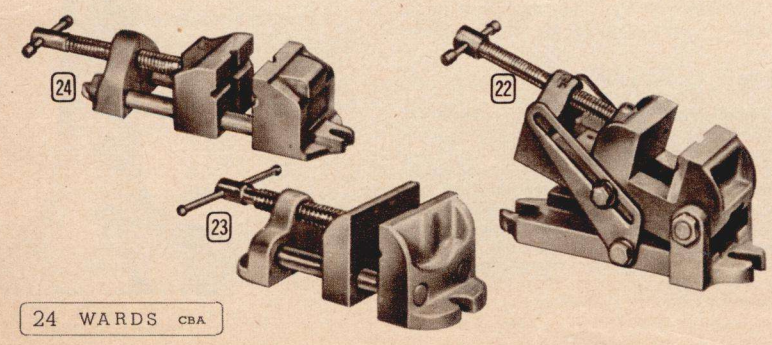
EXTRA-LONG PLANER BLADES. Fit (20). 1¼ in. long.

84 KRP 2582 K—*Postpaid*..... Pkg. of 3 for $2.75

[21] PLANER BLADE HOLDER. Holds blades at correct angle for sharpening. Die-cast metal.

84 KRP 2581K—*Mailed Postpaid*..... 75c

Items with numbers ending in "T" shipped from Stock in Chicago. Order, pay postage from nearest Mail Order House. *Shipped from Chicago Factory.



DRILL PRESS VISES 2.79 TO 8.75

[22] TO [24] Rugged cast-iron construction. Designed to hold small articles or pieces when drilling. These vises are ideal for tool-rooms, machine shops, home or repair shops.

(22) PALMGREN TILTING ANGLE VISE. For heavy-duty production. Steel jaws 2½ in. wide, 17/16 in. deep. Tilts to 90°. Size 4x9x3 5/8 in.

84 KR 2596—Jaws open to 2½ in. Ship. wt. 10 lbs..... $8.75

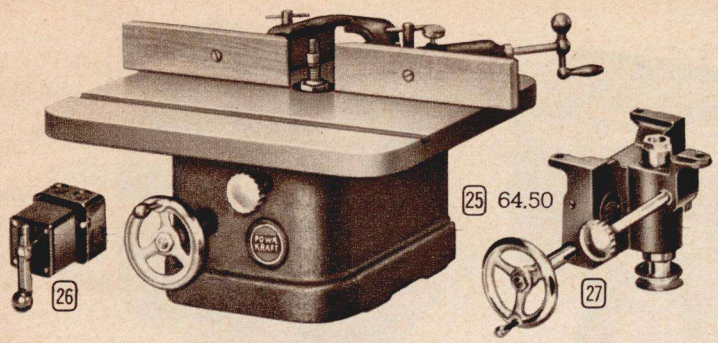
(23) HEAVY-DUTY VISE. Fully machined jaws 3 inches wide, 1 5/16 in. deep, open to 3 inches. Sturdy, durable base.

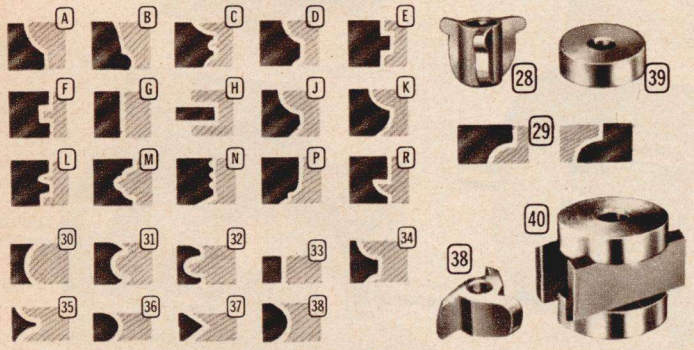
84 KR 2561—Shipping weight 6 lbs. 8 oz..... $5.98

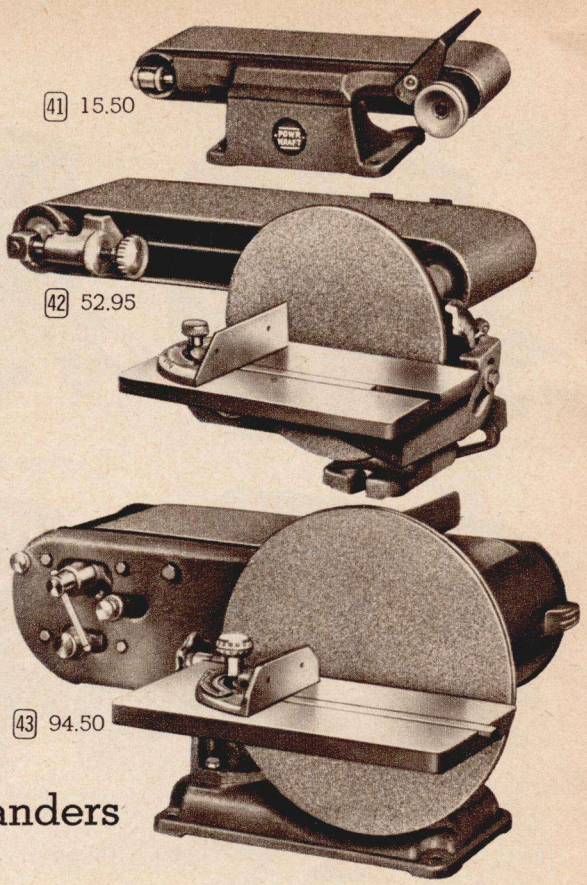
(24) LIGHT-DUTY VISE. Grooved jaw 2 3/8 in. wide, 1 5/8 in. deep.

84 KR 2563—Jaws open to 2 5/8 in. Ship. wt. 5 lbs..... $2.79

SEE PAGE 57 FOR A COMPLETE SELECTION OF DRILL BITS AND SETS.







Powr-Kraft Wood Shaper . . . Belt Sanders

HIGH-SPEED PRODUCTION-TYPE WOOD SHAPER 64.50

25 BALL BEARING MODEL. Takes 5/16 and 1/2-in. bore shaper cutters. Cuts moldings and grooves on edge, sides of straight or curved stock. 24,750 cuts per min. at 8250 RPM spindle speed. New Departure ball bearing spindle, 1/2-in. diam., travels 1 in. 1 5/8-in. diam. quill. Micrometer spindle adjustment—one turn of wheel moves spindle 1/20 in. Self-centered, tapered adapter keyed to spindle, operates in both directions. Micrometer adjustment controls cutting depth. Cast-iron 14x18-in. table. Size 19 1/2x19 1/2x11 in. Fence, starting pin, 5/16 and 1/2-in. cutter adapters, pulley.

84 KR 2450 R—Ship. wt. 73 lbs. *Not Mailable.* $6.50 Down . . . . . Cash $64.50

84 KR 2492 R—Shaper with 1/2-HP high-speed capacitor motor (83 KR 4596 MB on Page 26). 5-in. motor pulley, 31-in. "V" belt. Wt. 104 lbs. $9.50 Down. . . Cash $92.25

26 REVERSING SWITCH. On, off and reverse positions. Bakelite case and lever knob. For use with motors up to 1-HP, capacity 110–500 volts AC. UL Approved.

84 KR 2491—Ship. wt. 12 oz. $5.98

27 SHAPER MECHANISM. Same as mechanism in (25) above. For making your own wood shaper. Spindle mounted in New Departure ball bearings. For 1/2 or 5/16-in. bore shaper cutters. With adapters, 2 1/4-in. diam. machine pulley.

84 KR 2451LB—Ship. wt. 20 lbs. $3 Down . . . . . Cash $29.95

28 SHOPSMITH 1/2-IN. BORE SHAPER CUTTERS. Use on shapers, Shopsmith or drill presses. Alloy steel. 1-in. width cut. 1 3/4-in. diam. Proper heel clearance prevents burning, eliminates drag. Edges angled for true shaving cut.

84 KRP 3138—*State Profile Letter (A) to (R) pictured above. Postpaid.* . . . . . Each $1.95

29 SHOPSMITH DROPLEAF TABLE SHAPER CUTTER SET. 1/2-in. bore.

84 KRP 3141—One for dropleaf, one for table edge. *Postpaid.* . . . . . Set $4.95

30 TO 38 POWR-KRAFT 5/16-IN. BORE SHAPER CUTTERS. Special alloy steel, heat treated, tempered. Use on shaper or drill press with 5/16-in. shaping adapter. Ship. wt. each, 3 oz. *State Cat. No., width, diameter.*

Catalog No.	Width	Diam.	Each	Catalog No.	Width	Diam.	Each
(30) 84 KR 2455 T	*.177 in.	.95 in.	$1.25	(34) 84 KR 2459 T	*.442 in.	1.25 in.	$1.25
(30) 84 KR 2455 T	.442 in.	.95 in.	1.25	(35) 84 KR 2461 T	.344 in.	1.24 in.	1.25
(31) 84 KR 2456 T	*.442 in.	1.03 in.	1.25	(36) 84 KR 2462 T	.260 in.	1.20 in.	1.25
(32) 84 KR 2457 T	*.388 in.	1.16 in.	1.25	(37) 84 KR 2463 T	*.177 in.	1.12 in.	1.25
(33) 84 KR 2458 T	*.125 in.	.95 in.	1.25	(38) 84 KR 2460 T	*.354 in.	1.09 in.	1.25
(33) 84 KR 2458 T	.250 in.	.95 in.	1.25	(38) 84 KR 2460 T	.442 in.	1.13 in.	1.25
(33) 84 KR 2464 T	1.00 in.	1.25 in.	1.98	. . . . .	. . . . .	. . . . .	. . . .

7-PIECE SHAPER CUTTER SET. 5/16-in. bore. Includes 1 each of cutters marked (*) in table above, plus set of 6 assorted collars.

84 KR 2465 T—Shipping weight 1 lb. . . . . Set $7.50

24-PIECE SHAPER CUTTER SET. 5/16-in. bore. With set of assorted shaper collars. Incl. 1 ea. of cutters in table above, plus: (30) .264x.95 in.; (30) .354x.95 in.; (31) .221x.994 in.; (32) .303x1.09 in.; (33) .156x.95 in.; (33) .187x.95 in.; (35) .282x1.18 in.; (36) .194x1.13 in.; (37) .282x1.21-in. (38) .177x1.02 in.; (38) .264x1.06 in.

84 KR 2466 T—Ship. wt. 1 lb. 6 oz. $3 Down . . . . . Cash $27.50

39 SHAPER COLLARS. Mount with shaper cutters to control depth of cut.

84 KR 2467 T—Powr-Kraft 5/16-in. bore. Assorted sizes. Set of 6, Wt. 2 oz. 89c

84 KRP 3139—Shopsmith 1/2-in. bore. Assorted sizes. Set of 4, *Postpaid.* $1.45

40 SPLIT SHAPER KNIVES, COLLARS. Grind knives to profile required. Two beveled edge knives 2 1/8x3/16-in. clamp between collars. *State width.*

84 KR 2477 K—Knives. Wt. 6 oz. 1/2-in. width. Pair $2.19; 1-in. width. . . . . Pair $2.79

84 KR 2478 K—Collars. 1 3/4-in. diam., 1/2-in. bore. Ship. wt. 12 oz. . . . . Pair 1.79

BELT-DRIVEN BENCH-TYPE SANDERS 15.50 TO 94.50

41 POWR-KRAFT 4-IN. BELT SANDER. Compact medium-duty sander with self-lubricating bronze bearings. Crowned roller drums for sanding of curved surfaces. Adjusting nuts give proper belt tension and tracking. Removable guide fence adjustable to 45°. Table 4 7/16 by 11 in. supports belt. Streamlined sturdy gray iron frame. With 4 by 36-in. sanding belt, and 2-in. diam. machine pulley. Size overall 7 1/2x16 3/4x4 13/16 in. Gray wrinkle finish. *Mailable.*

84 KR 2719 M—Sander only. Ship. wt. 18 lbs. $15.50

SANDER (41) WITH 1/3-HP SPLIT-PHASE MOTOR. (See 83 KR 4506 MB, Page 26.) Includes 40-in. "V" belt, 2 1/2-in. diam. motor pulley.

84 KR 2720 YB—Ship. wt. 44 lbs. $3 Down on Terms. . . . Cash $28.50

SANDING BELTS. For (41). Alum. oxide. For wood, metal. Size 4x36 in.

84 KR 2729—*State fine, medium or coarse grit.* Wt. ea. 4 oz. Each 55c

42 POWR-KRAFT COMBINATION BELT AND DISC SANDER. For all around heavy-duty use in production or home workshop. Professional quality, precision-made sander meets the rigid requirements of the most skilled craftsman. Runs smoothly and quietly on high quality precision-ground needle bearings. Wide 6-in. belt operates in vertical or horizontal position, locks at any angle from 0 to 90°. Cast-iron table, 6 3/8x16 in., supports belt. 9-in. diam. disc large enough to perform biggest jobs. Cast-iron auxiliary table, 6 1/2x11 in., interchangeable with belt or disc, has miter gauge that adjusts up to 45°. Massive cast-iron construction adds strength, controls vibration. Belt driven on 3-in. diam. drums. Size 23 1/4x24 1/2x11 in. With 9-in. disc, 6x48-in. medium grit belt, 3-in. diam. machine pulley. Gray wrinkle finish. *Not Mail.*

84 KR 2726 R—Sander only. Ship. wt. 70 lbs. $5.50 Dn., Cash $52.95

SANDER (42) WITH 1/2-HP MOTOR. (See 83 KR 4541MB, Page 26 for description). With 2 1/2-in. diam. motor pulley, 1/2x44-in. "V" belt.

84 KR 2728 R—Ship. wt. 99 lbs. $8 Down on Terms. . . . . Cash $76.50

SANDING BELTS. For (42) and (43). Alum. oxide. Wood. metal. 6x48 in.

84 KR 2727—*State fine, medium or coarse grit.* Wt. ea. 12 oz. Ea. $1.00

43 BEAVER COMBINATION BELT AND DISC SANDER. Professional quality; precision made tool for heavy-duty production or home workshop use. Runs smoothly and quietly on grease-sealed ball bearings. Sturdy cast-iron construction for extra rigidity. 6-inch wide belt operates over 5 1/2-in. diam. drums in horizontal or vertical position; locks easily at any angle from 0 to 90°. Table supporting belt is 6 3/8x13 in. Large capacity 12-in. diameter disc has auxiliary work table, 7x13 in., with miter gauge; can be used with belt or disc.

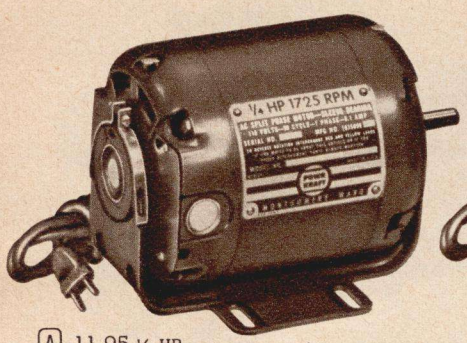
Table and disc easily removed. Use spindle for drum sander or any accessory with No. 1 or No. 2 Morse taper. With 6x48-inch sanding belt (extra belts 84 KR 2727 above), 12-inch disc, 4 1/2-inch diam. machine pulley; 46-inch V-belt (order 3-inch "V" motor pulley separately). Made in Canada, ship. from Factory Warehouse in Detroit, Mich., pay freight from there. Allow 7 days. *Not Mail.*

84 KR 2711F—Ship. wt. 83 lbs. $9.50 Down on Terms. . . . Cash $94.50

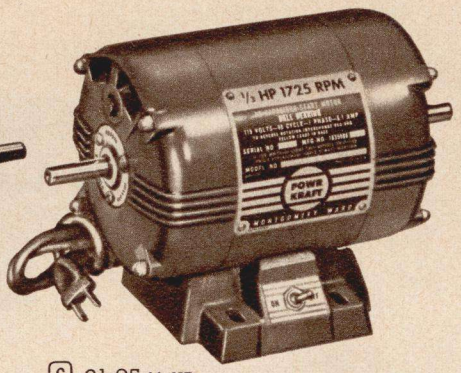
1/2-HP CAPACITOR MOTOR. For sander (43) above. See Page 26.

83 KR 4541MB—*Mailable.* Ship. wt. 28 lbs. $2.50 Down. Cash $24.50

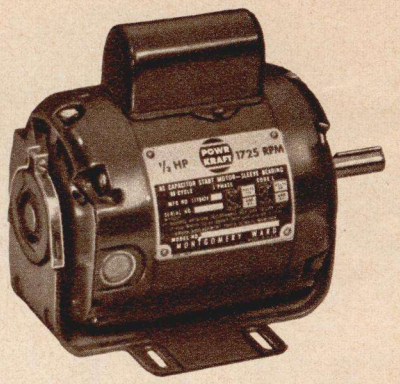
ITEMS WITH LETTER "K" AFTER CATALOG NUMBER mailed from Chicago Factory; you pay postage from there. Items with letter "T" after catalog number mailed from Stock in Chicago; order and pay postage from nearest mail order house.



Ⓐ 11.95 ¼ HP

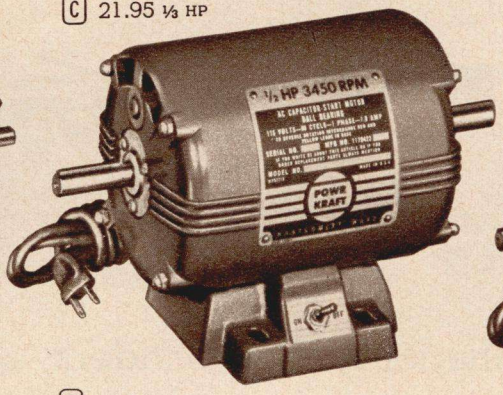


Ⓒ 21.95 ⅓ HP

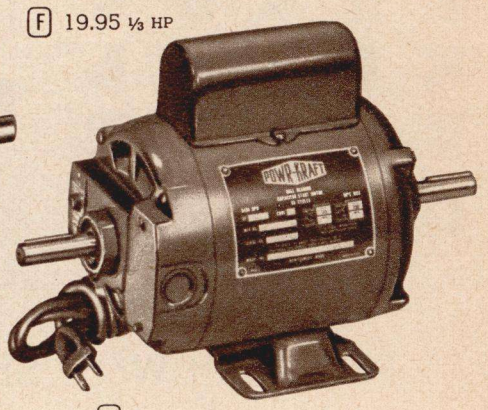


Ⓕ 19.95 ⅓ HP

Ⓑ 17.95 ⅓ HP



Ⓓ 28.50 ½ HP



Ⓔ 42.95 1 HP

Wards Complete Selection of Fine Quality Powr-Kraft

BEARING CONSTRUCTION OF WARDS MOTORS

Most Powr-Kraft motors have precision grease sealed ball bearings to insure smooth, quiet operation and dependable performance at peak efficiency. Ball bearing construction permits you to use motors in any position. Wards sleeve-bearing Split-Phase motors are equipped with nylon thrust washers that allow both horizontal and vertical mounting. Slotted mounting bases.

WHERE TO USE SPLIT-PHASE AND CAPACITOR MOTORS

SPLIT-PHASE motors are used for easy starting work such as light power tools, fans, washing machines, furnace blowers, etc. CAPACITOR motors are best for most medium starting jobs—they use up to ⅓ less starting current and start up to ⅔ heavier loads than Split-Phase. Recommended for home workshop and machine shop tools, water pumps and mechanical refrigerators, etc.

SPLIT-PHASE MOTORS 11.95 TO 17.95

Ⓐ Ⓑ STANDARD AND DE LUXE MODELS. Meet or exceed NEMA performance specifications. For easy starting jobs. Long life, full power, fan-cooled motors have heavy-gauge welded steel frames, drip-proof end shields. Develop 2 times rated capacity for starting. Easily reversed by changing lead wires. "Formvar" insulation gives double protection against heat, moisture; motors run cooler. Slotted mounting base. ½-in. diam. flat shafts extend 1½ in. With 8-ft. cord, plug. 1725 RPM. For 110–120 V., 60 cycle AC.

(A) ¼ AND ⅓-HP STANDARD MODELS. Precision sleeve bearings with large oil reservoir. New nylon thrust washer allows horizontal or vertical motor mounting; can be used on drill presses, etc. Motor turns in steel cradle to any angle; can be mounted upside down. Single shaft. Built-in conduit box. Mounting dimensions 3x4⅞ in.

83 KR 4505 MB—¼-HP. Ship. wt. 20 lbs. . . . $11.95

83 KR 4506 MB—⅓-HP. Ship. wt. 22 lbs. . . . 12.95

(B) ⅓-HP. DE LUXE MODEL. Streamlined design with heavy cast-iron base. Grease-sealed precision ball bearings—smooth operation. Use motor in any position. On-off toggle switch in base. Double shaft. Mount. dimensions 3x5⅛ in.

83 KR 4507 MB—Ship. wt. 26 lbs. $17.95

NEWLY DESIGNED POWR-KRAFT CAPACITOR MOTORS 19.95 TO 58.85

Ⓒ Ⓓ Ⓔ BALL BEARING CAPACITOR MOTORS. Combine powerful, efficient operation with streamlined appearance. Meet or exceed NEMA performance specifications. For medium to hard starting jobs. Use ⅓ less starting current than Split-Phase motors, yet start up to ⅔ heavier loads. Very efficient for home or machine workshop tools.

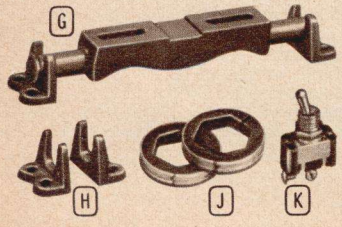
10 outstanding features: (1) Oversize precision grease-sealed ball bearings—insure smooth, quiet operation—use motors in any position. (2) Built-in Thermoguard ® overload protector automatically shuts off motor when overload or short circuit occurs—prevents burn-out. (3) Capacitors reduce starting current ⅓. (4) "Formvar" insulated windings with baked-on plastic finish—protection against heat, moisture. (5) Centrifugal starting switch—silver contact points. (6) Efficient fan and air vents. (7) Double shaft—will operate two tools at once. (8) Changing lead wires reverses motors. (9) 8-ft. vinyl plastic-covered cord, unbreakable plug. (10) Blue-Gray baked-on enamel finish.

Motors (C) and (D) have on-off switches in base. Motor (E) has built-in conduit box. High Speed motors (3450 RPM) eliminate step-up pulleys.

	Catalog Number	HP	Speed RPM	Volts, 60 cycle AC	Shaft diam., in.	Shaft extends	Mounting dimen.	Capacitor Location	Ship. wt.	Cash Price
(C)	83 KR 4540 MB	⅓	1725	110–120	½ flat	1½ in.	3x5⅛ in.	Built-in	27 lbs.	$21.95
	83 KR 4541 MB	½	1725	110–120	⅝ keyed	1⅞ in.	3x5⅛ in.	Built-in	28 lbs.	24.50
(D)	83 KR 4596 MB	½	3450	110–120	⅝ keyed	1⅞ in.	3x5⅛ in.	Built-in	30 lbs.	28.50
	83 KR 4597 MB	¾	3450	110–120	⅝ keyed	1⅞ in.	3x5⅛ in.	Built-in	34 lbs.	32.50
(E)	83 KR 4598 MB	1	3450	110–120/220–240	⅝ keyed	1⅞ in.	3x4⅞ in.	External	34 lbs.	42.95
	83 KR 4599 MO	1½	3450	110–120/220–240	¾ keyed	2¼ in.	5x5⅞ in.	External	56 lbs.	58.85

Ⓕ ⅓-HP APPLIANCE CAPACITOR MOTOR. For workshop tools and replacement on stokers, refrigerators, sump pumps, oil burners, ventilating fans, refrigerators, etc. Meets all NEMA specifications. High starting torque—starts loads 50% heavier than Split-Phase. Diamond bored, precision sleeve bearings with nylon thrust washer—use horizontally or vertically. Large oil reservoir. Cradle mounting permits angle or wall installation. Rubber mounting rings. Heavy-gauge steel base with drip-proof end shields. Built-in conduit box. ⅝-in. diam. keyway shaft—extends 1⅞ in. Easily reversed. 1725 RPM.

83 KR 4567 MB—110–120/220–240-V. Mount. dimensions 3x4⅞ in. Ship. wt. 24 lbs. $2 Down. . . . Cash $19.95



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ALL WARDS ELECTRIC MOTORS ARE GUARANTEED ONE YEAR AGAINST DEFECTS

Powr-Kraft motors are engineered and built by several of the nation's leading manufacturers. Each motor is scientifically tested before shipment. If any Ward motor, used and cared for in accordance with operating instructions, proves defective in materials or workmanship within one year of date of purchase we will repair it without charge to the customer.

Ⓖ FLOATING MOTOR RAIL. Provide power for several tools with one motor. Mount extra brackets (H) near each tool—shift motor as needed. Motor weight gives belt tension. For ¼ to ½-HP motors. Ship. wt. 1 lb.

83 KR 4740—Brackets, screws, bolts included. 89c

Ⓗ MOTOR RAIL BRACKETS. For motor rail (G) above.

83 KR 4741—Ship. wt. 4 oz. per pair. . . . . Pair 39c

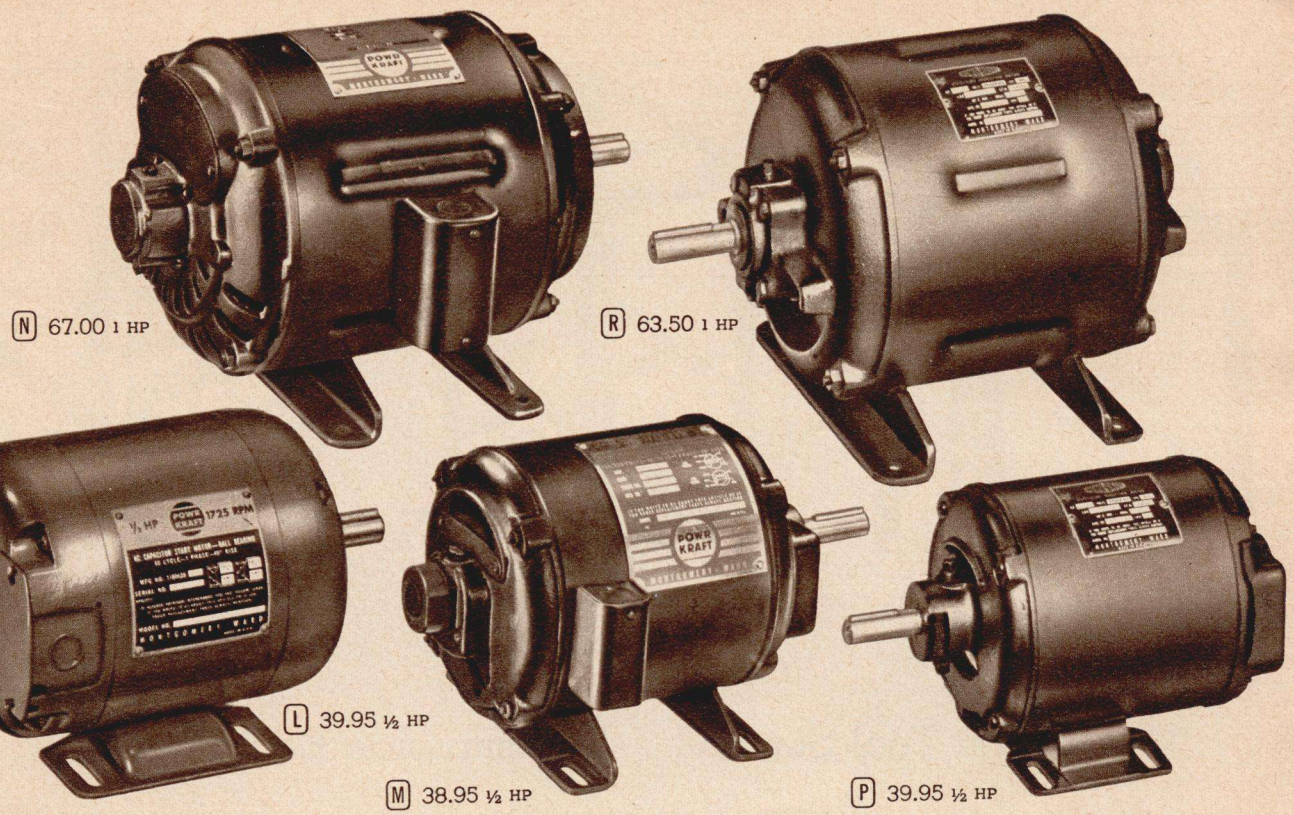
Ⓙ RESILIENT MOUNTING KIT. Cushions motor for smooth operation. Rubber mounting rings replace metal rings.

83 KR 4508—Fits (A) only. Wt. 3 oz. . . . . Kit $1.19

Ⓚ MOTOR TOGGLE SWITCH. For all motors up to ¾ HP. Fits ½-in. diam. hole. Ship. wts.: 2 oz., 3 oz.

83 KR 4702—On-off Switch only 45c

83 KR 4703—3-Way—On, Off, Reverse. 89c



(N) 67.00 1 HP

(R) 63.50 1 HP

(L) 39.95 ½ HP

(M) 38.95 ½ HP

(P) 39.95 ½ HP

Electric Motors . . . All Guaranteed for One Year

USE OF MILL-TYPE, REPULSION-INDUCTION, 3-PHASE MOTORS

MILL-TYPE CAPACITOR motors are designed for heavy-duty starting jobs on power tools, compressors, etc. REPULSION-INDUCTION motors start heaviest loads—big power tools, well pumps, freezers, etc. Recommended for use where heavily-loaded circuits cause low voltage. 3-PHASE motors are used for heavy jobs in machine shops and factories. Operate only on 3-phase power circuits—consult Power Co. before ordering.

NOTE: Buy a motor large enough to do your work economically—it will last far longer than a smaller motor operating under continual strain.

MILL-TYPE CAPACITOR MOTORS 39.95 TO 48.50

(L) ½ TO 1 HP. Meet or exceed NEMA performance specifications. For extra-heavy production use on hard starting loads. Have 3 to 5 times rated capacity for starting. Grease-sealed precision ball bearings. Internal capacitor, built-in conduit box. Easily reversed. Thermoguard® overload protector prevents motor burn-out. ¾-in. diam. keyway shaft extends 2¼ in. 1725 RPM. For 110–120/220–240 volts, 60 cycle AC. Mounting dimensions 5x5⅞ in. *Mailable.*

83 KR 4580 MO—½ HP. Ship. wt. 50 lbs. $4.00 Down. . . . . Cash $39.95
83 KR 4581 MO—¾ HP. Ship. wt. 54 lbs. $4.50 Down . . . . . Cash 44.95
83 KR 4582 MO— 1 HP. Ship. wt. 59 lbs. $5.00 Down. . . . . Cash 48.50

REPULSION-INDUCTION MOTORS 38.95 TO 230.00

(M) (N) HEAVY-DUTY SINGLE-PHASE. For extra-hard starting jobs in shops or industry, on farms or REA lines. Meet NEMA and AIEE specifications. Excellent for use in areas where severe climactic conditions or heavily-loaded circuits cause voltage drops. Develop 4 to 5 times rated torque for starting and emergency periods. Made for continuous duty; withstand frequent starts and stops. Easily reversed. Air vents and fan for cooling. 4 high-grade carbon brushes for easy starting. Heavy copper wound armature. Single keyway shaft. 1725 RPM. for 110–120/220–240-V. 60 cycle AC (check Power Company on voltage, phase and line capacity).

(M) ½ AND ¾ HORSEPOWER. For heavy production work. Oversize steel-backed babbitt sleeve bearings, diamond bored. Use in horizontal position. Large oil reservoir. Rugged steel frame, welded seams. Cast-iron end bells. Brush lifting mechanism. *Mailable.*

(N) 1 TO 5 HORSEPOWER. For heaviest production work in shops, factories or hard-starting jobs. Prelubricated oversize grease-sealed ball bearings for smooth operation. Cast-iron frame, end shields, base. Use in any position. Brush riding mechanism. *Not Mailable.*

State Catalog No. and Horsepower. Use Credit Terms, Page 32.

Key	Catalog Number	Horse-power	Shaft diam.	Shaft extends	Mounting dimen.	Ship. wt.	Cash Price
(M)	83 KR 4612 MO	½	¾ in.	2⅜ in.	5 x5⅞ in.	39 lbs.	$38.95
		¾	¾ in.	2⅜ in.	5 x5⅞ in.	43 lbs.	52.00
(N)	83 KR 4640 R	1	¾ in.	2 1/16 in.	5½x8 in.	80 lbs.	67.00
		1½	¾ in.	2 1/16 in.	6½x8 in.	90 lbs.	90.00
		2	1 in.	2 13/16 in.	6¾x9 in.	125 lbs.	112.00
		3	1 in.	2 13/16 in.	7½x9 in.	140 lbs.	150.00
		5	1⅛ in.	3 3/16 in.	8¼x10 in.	180 lbs.	230.00

3-PHASE INDUSTRIAL MOTORS 39.95 TO 115.00

(P) (R) HEAVY-DUTY. Meet or exceed NEMA, AIEE specifications. For hard-starting loads, production work on machine tools, etc. 3 to 5 times rated torque for starting. Grease-sealed precision ball bearings. Use in any position. Easily reversed. Single keyway shaft. 1725 RPM. 220/240-V. 3-phase 50/60 cyc. only (check Power Co. before ordering). *State Cat. No., HP. Prepaid* from Chicago, Ill. Factory.

Key	Cat. No.	HP	Shaft. diam.	Shaft. ext.	Mount. dimen.	Each
(P)	83 KRP 4652 K	½	⅝ in.	1⅞ in.	3 x 4⅞ in.	$39.95
		¾	⅝ in.	1⅞ in.	3 x 4⅞ in.	52.00
(R)	83 KRP 4653 F	1	⅞ in.	2¼ in.	4½x 7½ in.	63.50
		1½	⅞ in.	2¼ in.	5½x 7½ in.	74.50
		2	⅞ in.	2¼ in.	5½x 7½ in.	85.00
		3	1⅛ in.	3 in.	5½x 8½ in.	96.00
		5	1⅛ in.	3 in.	7 x 8½ in.	115.00

(T) (U) NEW FUSED DEVICES on metal plates. Use with surface-mounted box. For 125-V or less. Wt. ea. 7 oz.

(T) POLARIZED RECEPTACLE, FUSE HOLDER. Grounding slot. For ¾ HP or less.
83 KR 171—Each 79c. . . . . 3 for $2.29

(U) SINGLE POLE SWITCH, FUSE HOLDER. ½ HP or less. Permanent appliances.
83 KR 170—Each 89c. . . . . 3 for $2.59

(V) TIME DELAY FUSE for (T), (U). Take temp. overload. *State:* 4,6½,8 amp.
83 KR 771L–Wt. 2 oz. Ea. 16c; 4 for 59c

(W) WESTINGHOUSE START-STOP SWITCH. Up to 2 HP. 2-pole switch. (No overload protection). Wt. 1 lb. 8 oz.
83KR4705–110–120/220–240-V.AC. $2.95

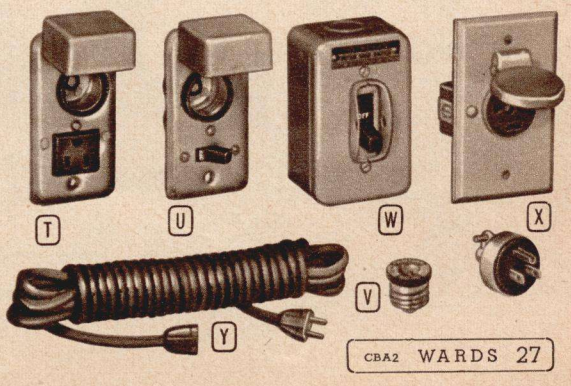
(X) POLARIZED GROUNDING RECEPTACLE WITH CAP. For portable tools, dryers, etc. Use 3-wire cord. Wt. 10 oz.
83 KR 275—15 amp, 125-V. $3.45

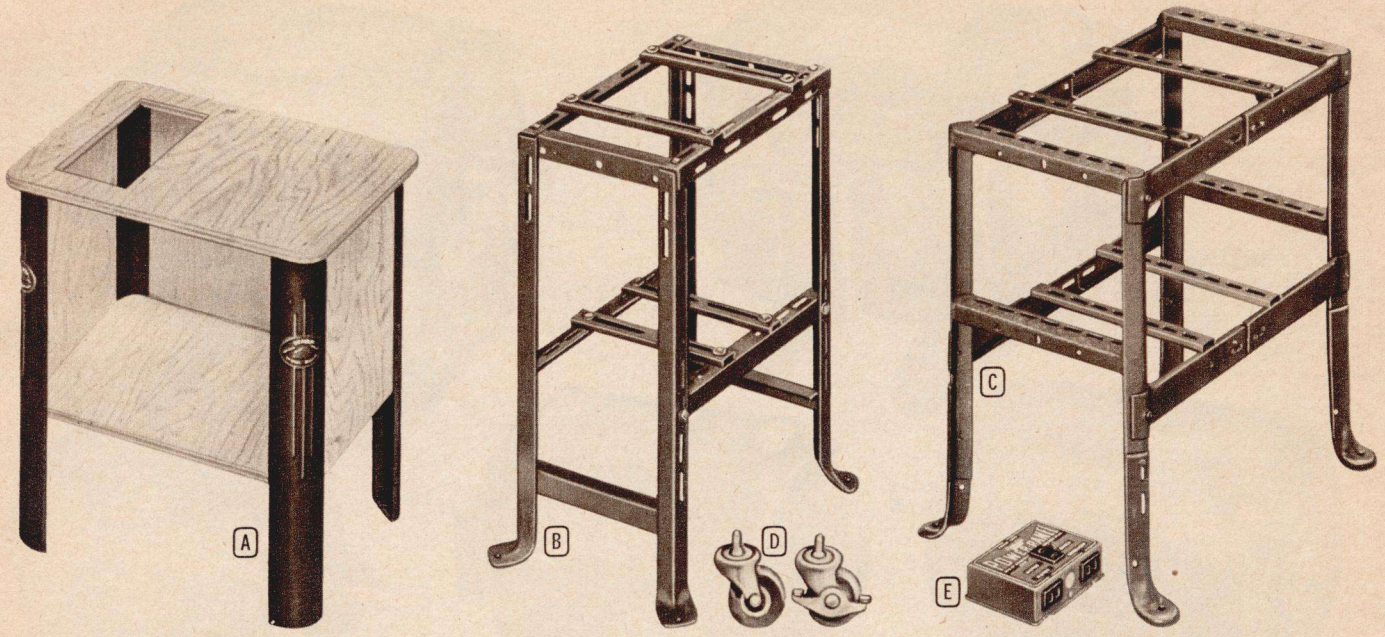
(Y) BLACK RUBBER CORD. Heavy-duty type for replacement, extensions.

2-WIRE EXTENSION CORD. With plug and outlet. 16-ga. copper conductors.
83 KR 1271L—25 ft. Wt. 2 lbs.. . . . $1.95
83 KR 1275L—100 ft. Wt. 7 lbs. . . . 6.75

3-WIRE EXT. CORD. Meets new code requirements for portable tools. 14-ga.
83 KR 1270L—25 ft. Wt. 5 lbs. $8.45

REPLACEMENT CORD WITH PLUG. 2-wire, 18-ga. conductors. Stripped leads.
83 KR 1273—10 ft. Ship. wt. 1 lb. . . . 69c





Power Tool Stands . . . Transmission Equipment

BEAVER TOOL LEGS

(A) Make your own stand to fit any power tool. Cast semi-steel. Made in Canada. Holes drilled in legs (wood not included). Shipped promptly from Factory in Detroit, Mich. Set of 4.

31¼ IN. HIGH LEGS. Fit Beaver Jig Saw, Lathe, Drill Presses. Ship. wt. 31 lbs.
84 KR 2958 K.....$14.50

24½ IN. HIGH LEGS. Fit Beaver Band, Bench Saws; Jointer; Sander. Wt. 26 lbs.
84 KR 2957 K.....$14.50

ANGLE-IRON POWER TOOL STANDS 9.95 TO 17.25

(B) Specially designed to fit most bench-type power tools. Heavy-duty construction. Mounting rails for tool base are adjustable; adjustable rails for motor base and height. Legs have bolt holes in feet for permanent mounting or for attaching casters. About 11-ga. construction. Gray wrinkle finish. *Mailable.*

Catalog No.	Size, In.	Fits	Wt.	Price
84 KR 2960MB	13x14 x29	Jig Saw (2355); Shaper (2450); Sanders (2702, 2719); Grinder (5285).	30 lbs.	$11.95
84 KR 2961MB	13x20 x22	Band Saw (2315); Bench Saws (3480, 3481).	32 lbs.	12.75
84 KR 2962MB	13x20 x28⅞	Bench Saws (2250, 2253, 2263, 2257, 2260, 2261); Sanders (2724, 2704, 2726, 2712); Band Saws (2316, 2319, 2320, 2304, 2314); Jointers (2506, 2521, 2505, 2508, 3427); Drill Presses (2530, 2533, 2535); Jig Saw (2350).	35 lbs.	12.95
84 KR 2963MB	13x24 x29	Jig Saw (2356).	36 lbs.	13.25
84 KR 2964YO	13x47½x30⅞	Lathes (2002, 2004).	53 lbs.	17.25

SAW STAND Similar to (B). Fits saws 84 KR 3475 R, 84 KR 3315 MO, 84 KR 2370 MO.
84 KR 2959 MB—*Size* 16x26½x28¾ in. high. *Mailable.* Ship. wt. 34 lbs.....$9.95

ADJUSTABLE STANDS 13.95, 16.95

(C) Two sizes to fit all Powr-Kraft Tools. Made of 12-ga. steel. Width 16 in.; height adjusts from 24¼ to 33¼ in.
84 KR 2954 MB — Length adjusts from 16⅜ to 25⅞ in. Ship. wt. 38 lbs...$13.95
84 KR 2955 MO — Length adjusts from 25⅝ to 44⅜ in. Ship. wt. 48 lbs...$16.95

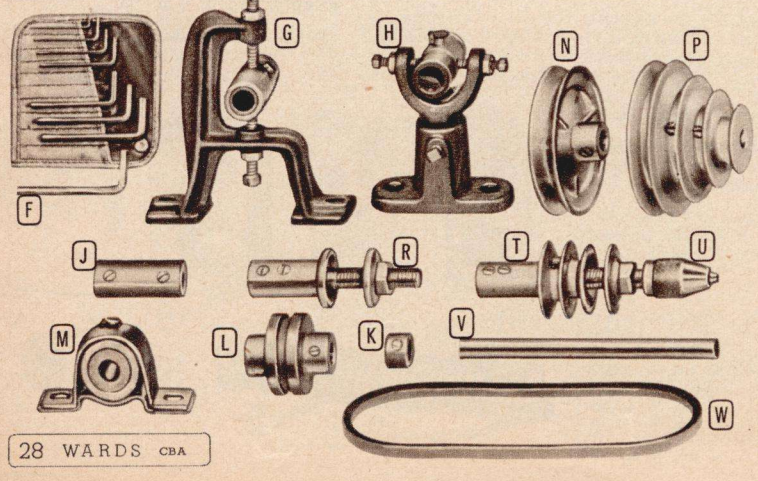
(D) CASTERS. Fit (B and C). Wt. 2 lbs.
84 KR 2973.....Set of 4 $2.15

(E) NEW CURRENT TAP. For control of power tools, motor and tool light. 2 outlets; one controlled by UL approved 1 HP, 125–250-volt, AC-DC, toggle switch. Double-prong power receptacle.
84 KR 2971—Ship. wt. 1 lb. 4 oz...$3.50

(F) SOCKET KEY SETS. Hardened tool steel. Regular length for Allen type No. 6 to ½-in. set screws, No. 4 to 5/16-in. cap screws. Extra long fits No. 8 to ⅝-in. set screws, No. 4 to 7/16-in. cap screws. In plastic kit that folds to fit in pocket. Sets of eight.
84 KR 2901—Regular length. Ship. wt. 3 oz.....Set 65c
84 KR 2902—Extra-long length. Ship. wt. 8 oz.....Set 98c

(G) TO (M) Pillow Blocks self adjusting with bronze bearings. Shaft Hangers adjust for shaft alignment, have bronze bushings; (G) height adjusts 4 to 5 in. Flexible Couplings are self adjusting, rubber cushioned; (J) and (K) machined from solid bar steel. Hanger (G) shipped promptly from Chicago Factory; others from Stock. *State bore size.*

Key	Description	Catalog Number	Ship. Wt.	½-in. bore Ea.	½-in. bore 2 for	⅝-in. bore Ea.	⅝-in. bore 2 for	¾-in. bore Ea.	¾-in. bore 2 for
(G)	Shaft Hangers.....	84 KR 2891K	5½ lbs.	.....	.....	.....	.....	$3.75	$7.25
(H)	Shaft Hangers.....	84 KR 2890	2 lbs.	$1.45	$2.86	$1.65	$3.26	1.70	3.36
(J)	Solid Couplings.....	84 KR 2886	.7 oz.	35c	66c	45c	86c	49c	94c
(K)	Shaft Collars.....	84 KR 2887	3 oz.	19c	36c	25c	48c	27c	52c
(L)	Flex. Couplings.....	84 KR 2885	8 oz.	59c	$1.14	59c	$1.14	79c	$1.54
(M)	Pillow Blocks.....	84 KR 2925	10 oz.	98c	1.90	$1.05	2.04	$1.10	2.14



(N) (P) "V" PULLEYS. For "A" section "V" belts. ½-in. groove. Sizes marked (*) have set screw fastening to shaft; all others have combination keyway slot and set screw.

(N) SINGLE GROOVE "V" PULLEYS. Die-cast. 1½-in. to 4-in. pulleys webbed as shown; 5, 6 and 8 in. have ribbed oval spoke design.
84 KR 2878—*State diameter and size bore wanted.*

Diam.	Bore, In.	Ship. wt.	Each
1½ in.	*½ or *⅝	4 oz.	27c
2 in.	*½ or ⅝	6 oz.	36c
2½ in.	*½, ⅝ or *¾	8 oz.	41c
3 in.	*½, ⅝ or ¾	10 oz.	46c
4 in.	*½, ⅝ or ¾	12 oz.	58c
5 in.	*½, ⅝ or ¾	1 lb.	74c
6 in.	*½, ⅝ or ¾	1¾ lbs.	$1.05
8 in.	*½, ⅝ or ¾	2 lbs.	1.45

(P) FOUR STEP "V" PULLEYS. Die cast. *State* *½, ⅝, ¾-in. bore.
84 KR 2895—4⅛, 3⅜, 2⅝, 1⅞-in. diam. steps. Wt. 2 lbs.....$1.25
84 KR 2896—5⅛, 4⅝₃₂, 3⅜₃₂, 2-in. diam. steps. Wt. 2½ lbs.... 1.50

(R) MOTOR ARBORS. ½-in. 24-thread spindle. Wt. ea. 10 oz.
84KR2915—Fits ½-in. shaft.85c; 84KR2916—Fits ⅝-in. shaft.89c

(T) MOTOR ARBOR WITH CHUCK. With single groove pulley.
84 KR 2892–With ¼-in. chuck. Fits ½-in. shaft. Wt. 1½ lbs.$1.98
84 KR 2893—With ½-in. chuck. Fits ½-in. shaft. Wt. 1½ lbs.. 2.45

(U) 3-JAW CHUCKS. Fit ½-in. 24-thread spindles. Ship. wts. 3, 6 oz.
84 KR 2764—¼-in. capacity 65c; ½-in. capacity....85c

(V) STEEL LINE SHAFTING. Ground to .002 in. Wt. 2, 4, 7 lbs.
84 KR 2888—½x24 inches.....55c
84 KR 2898—⅝x35 in. $1.25; 84 KR 2889 M—¾x48 in.....$1.85

(W) RUBBER "V" BELTS. "A" section type. 9/32 in. thick, ½ in. wide. Rayon cord, rubber core, rubber treated cotton jacket.
84 KR 2876—*State size.* Measure around edge of pulleys. Wt. 8 oz.

Size	Each	Size	Each	Size	Each	Size	Each	Size	Each	Size	Each
20 in.	45c	30 in.	50c	37 in.	60c	44 in.	70c	54 in.	80c	66 in.	$1.00
22 in.	45c	31 in.	55c	38 in.	60c	45 in.	70c	56 in.	90c	72 in.	1.19
24 in.	45c	32 in.	55c	39 in.	65c	46 in.	70c	58 in.	90c	82 in.	1.25
25 in.	45c	34 in.	55c	40 in.	65c	48 in.	75c	60 in.	90c	92 in.	1.50
26 in.	50c	35 in.	55c	41 in.	65c	50 in.	75c	62 in.	95c	.....	.....
28 in.	50c	36 in.	60c	42 in.	70c	52 in.	80c	64 in.	$1.00	.....	.....

It's Easy and Convenient to Order from Wards

COMPLETE SATISFACTION ALWAYS GUARANTEED

Millions like to order direct by mail because it's so convenient to do your shopping comfortably at home. Take all the time you want to choose the items you need. Then just mail your order direct to Wards. We will give it prompt attention, guaranteeing satisfaction in every way.

Simply list all items wanted, using the order blank enclosed or any plain piece of paper. Always give complete information, stating full Catalog Number (Example 84 KR 2506M), name, shipping weight and price of each item; *Also be sure to State Size* if there is a choice. Add shipping weights to determine total weight of order.

SHIPPING INFORMATION. Unless otherwise specified, all items in this catalog are shipped promptly from Stock. You pay shipping charges from your nearest Wards Mail Order House unless item is marked "*Postpaid*," or will be shipped directly to you from a factory. On some factory shipments you pay shipping charges from factory; allow extra time for handling.

On all mailable items except those marked "*Postpaid*," include amount for postage with your order (see rates below). If you send too much, we will return every cent not needed. DO NOT send money for Freight or Express charges if there is a freight agent at your station; pay shipping charges when goods arrive. See estimated rates below.

PARCEL POST RATES

Parcels not over 70 lbs. or more than 100 inches in length plus girth (around) at widest point may be mailed to all zones (with certain size and weight restrictions to 1st Class Postoffices).

ZONES	Local	1–2	3	4	5
Shipping Weight of Your Order	Within This City	Up To 150 Miles	151–300 Miles	301–600 Miles	601–1000 Miles
Up to 8 ounces	2c for the first 2 ounces and 1c for each additional ounce.				
9 oz. to 1 lb.	18c	23c	23c	24c	26c
1 lb. 1 oz. to 2 lbs.	20c	27c	29c	31c	36c
2 lbs. 1 oz. to 3 lbs.	21c	31c	34c	38c	45c
3 lbs. 1 oz. to 4 lbs.	23c	35c	39c	45c	54c
4 lbs. 1 oz. to 5 lbs.	24c	39c	44c	52c	63c
5 lbs. 1 oz. to 6 lbs.	26c	43c	49c	59c	73c
6 lbs. 1 oz. to 7 lbs.	27c	47c	54c	66c	82c
7 lbs. 1 oz. to 8 lbs.	29c	51c	60c	73c	91c
8 lbs. 1 oz. to 9 lbs.	30c	55c	65c	80c	$1.00
9 lbs. 1 oz. to 10 lbs.	32c	59c	70c	87c	1.10
10 lbs. 1 oz. to 11 lbs.	33c	63c	75c	93c	1.19
11 lbs. 1 oz. to 12 lbs.	34c	67c	80c	$1.00	1.28
12 lbs. 1 oz. to 13 lbs.	36c	71c	85c	1.07	1.37
13 lbs. 1 oz. to 14 lbs.	37c	75c	90c	1.14	1.47
14 lbs. 1 oz. to 15 lbs.	39c	79c	96c	1.21	1.56
20 lbs.	46c	99c	$1.21	1.56	2.02
30 lbs.	61c	$1.38	1.73	2.25	2.95
40 lbs.	75c	1.78	2.24	2.94	3.87
50 lbs.	90c	2.17	2.76	3.63	4.80
60 lbs.	$1.04	2.57	3.27	4.32	5.72
70 lbs.	1.19	2.96	3.79	5.01	6.65

HOW TO SEND MONEY. Best ways to send money are: Postal or Express Money Orders; Bank Money Orders or Drafts; Cashiers Checks or your own personal check. If you live on a rural route, your mail carrier will arrange for a Postal Money Order.

ABOUT PRICES. Prices in this catalog reflect Wards policy of quoting lower prices, wherever possible, than asked elsewhere for items of comparable quality. However, if a further price reduction is made on any item during the life of this catalog, we will fill your order at the reduced prices. You always get the benefit of any price reductions in effect when your order is received. Prices are subject to change without notice, and are subject to additional charges to cover any applicable sales tax, use tax, or other tax affecting our purchase or sale.

ABOUT C.O.D. ORDERS. We do not accept orders for less than $5 to be sent C.O.D. except for repair parts. No C.O.D.'s on orders cut or made to order; nor for any articles described in the Catalog as shipped from a Factory.

If there is a Ward Catalog Office or Ward Retail Store near you, it will be glad to handle your order and have it shipped to your home. Or you can call for your order and save part of the transportation charges.

MONTHLY PAYMENT PLAN. See Page 32 for details of this convenient plan.

ESTIMATED FREIGHT RATES

Freight shipments of less than 100 lbs. take 100-lb. rate. The minimum is the rate for 100 lbs. of the highest rated article in the shipment, but not less than $1.58. On shipments over 100 lbs. charges are based on actual weight. Add Federal Transportation Tax of 3% to all freight charges.

Description of Item	100 Miles	200 Miles	300 Miles	500 Miles	750 Miles	1000 Miles	1500 Miles	2000 Miles
Grinders, Electric	$1.21	$1.58	$1.91	$2.46	$3.14	$3.67	$4.74	$5.80
Metal Working Machines	1.21	1.58	1.91	2.46	3.14	3.67	4.74	5.80
Motors, Electric	1.01	1.32	1.60	2.06	2.63	3.07	3.97	4.85
Welders, Gas	1.31	1.71	2.06	2.66	3.39	3.97	5.12	6.27
Welders, Electric	1.01	1.32	1.60	2.06	2.63	3.07	3.97	4.85
Woodworking Machines	1.21	1.58	1.91	2.46	3.14	3.67	4.74	5.80

ESTIMATED EXPRESS RATES

Express is the fastest way to ship non-mailable merchandise, especially bulky, fragile or odd shaped articles. Add 3% Transportation Federal Tax.

Shipping Weight	100 Miles	200 Miles	300 Miles	400 Miles	500 Miles	750 Miles	1000 Miles	1500 Miles	2000 Miles
5 Pounds	$1.80	$1.80	$1.80	$1.80	$1.80	$1.80	$1.87	$1.99	$2.11
10 Pounds	1.80	1.80	1.87	1.96	2.01	2.13	2.25	2.49	3.73
15 Pounds	1.80	1.93	2.07	2.20	2.27	2.45	2.63	2.99	3.36
20 Pounds	1.91	2.09	2.26	2.43	2.53	2.77	3.01	3.50	3.98
25 Pounds	2.02	2.24	2.45	2.67	2.79	3.10	3.40	4.00	4.61
35 Pounds	2.23	2.54	2.84	3.15	3.32	3.74	4.16	5.01	5.86
55 Pounds	2.66	3.14	3.62	4.10	4.37	5.03	5.70	7.03	8.36
75 Pounds	3.09	3.74	4.40	5.05	5.41	6.32	7.23	9.04	10.86
100 Pounds	3.63	4.50	5.37	6.24	6.72	7.93	9.14	11.56	13.98

NOTICE. All rates on this page subject to change.

EQUIP YOUR WORKSHOP WITH FLUORESCENT FIXTURES 8.95 AND 13.75

Provide your workshop with proper lighting with these steel shaded utility fluorescent fixtures. You'll be amazed at the increase in efficiency that results from proper distribution of light. Eliminate strain on your eyes—you'll see better and work better. Both fixtures are economical and lightweight. Long-lasting heavy-gauge steel shades have baked-on white enamel finish inside for maximum light reflection. Simply designed for minimum of maintenance. Suspend with wire, stems or chain. Both have 3 hole end hangers for straight or tilted hanging. With outside starter bases, convenient knockouts for wiring. GE standard Cool White bulbs give glare-free light. Use separate circuit for workshop light fixtures to prevent dimming light when tools are operated. Also, if fuse blows because of overload or short circuit, lights will not be affected. *Mailable.*

(X) 2-LIGHT PORTABLE FLUORESCENT FIXTURE. Has rubber-covered cord and plug—can be moved anywhere the job takes you. All-white finish. With 2 GE regular-start bulbs. 24 x 11¾ inches. *Mailable.*

83 KR 4238 M—20 Watt. Shipping weight 10 lbs. $8.95

(Y) 2-LIGHT INDUSTRIAL FLUORESCENT FIXTURE. Ideal model for workshops, garages, etc. Has Green Hammerloid finish on outside of shade. With 2 GE regular-start bulbs. Size 48 x 12½ inches. *Mailable.*

83 KR 4237 MO—40 Watt. Shipping weight 20 lbs. $13.75

PLUG-IN STRIPS 3.45 AND 4.45

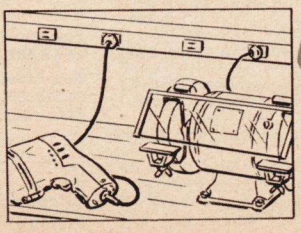
(Z) Supply plenty of outlets for your workshop. Eliminate "bottle-neck" extensions and the inconvenience of unplugging one tool to plug in another (see view below). Solid No. 12 copper conductors in gray metal case. Use for portable installation with cord and plug (not included) or permanent mount with Junction Box (listed below). Plug-in strip comes ready to install with mounting clips. Ship. wts. 1 lb. 4 oz., 2 lbs. 8 oz. *Mailable.*

83 KR 155 M—33 in. long, 5 outlets, 6 in. apart. $3.45

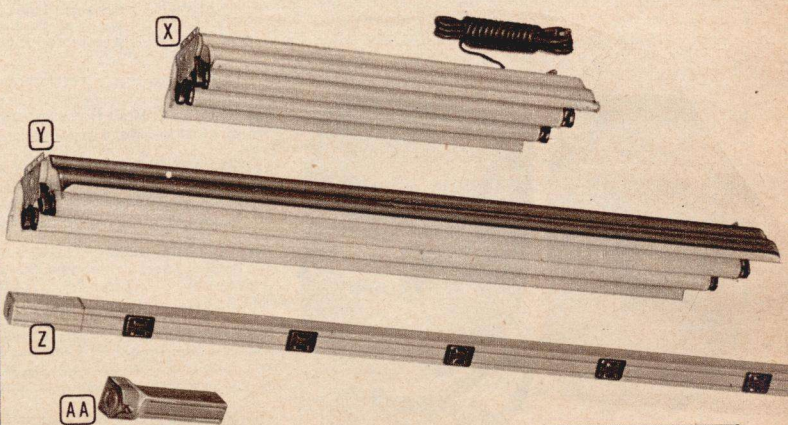
83 KR 156 MO—6 ft. long, 4 outlets, 18 in. apart. 4.45

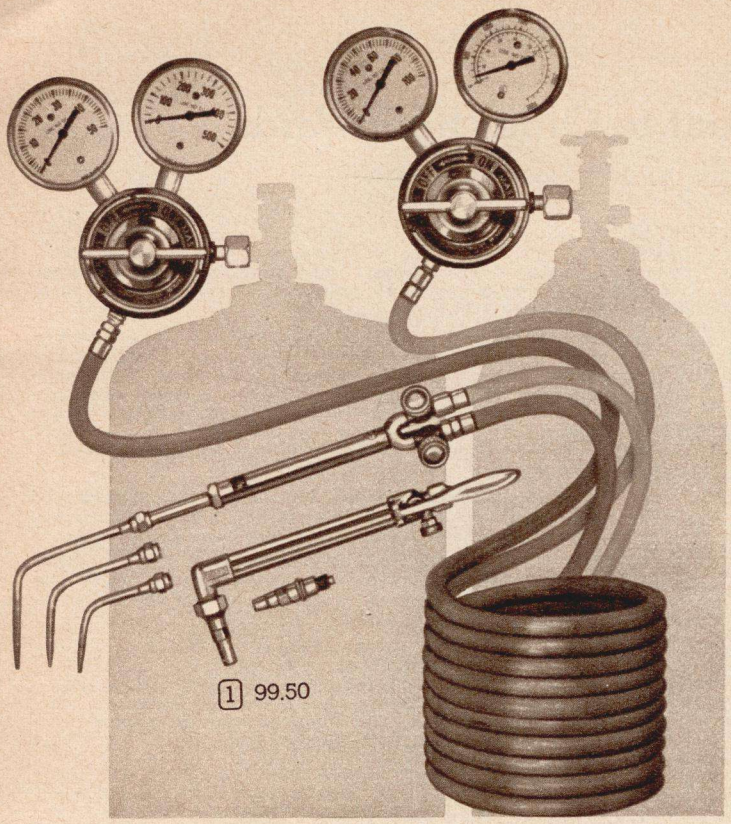
(AA) END JUNCTION BOX to be used for permanent installation with plug-in strip listed above. For Armored Cable, Romex or Conduit. Shipping weight 4 oz.

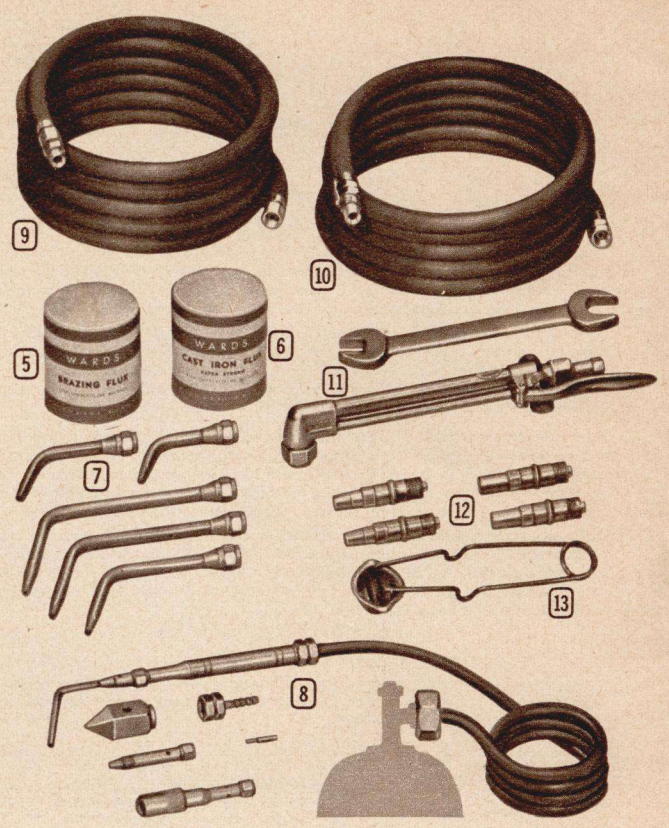
83 KR 162— 65c



See Wards General Catalog for complete listings of Romex, Conduit, Armored Cable, and other electrical accessories.







Oxy-Acetylene Welding Outfits and Accessories

COMBINATION GAS WELDING AND CUTTING OUTFIT 99.50

[1] WARDS MASTER (BEST) QUALITY. Designed for heavy-duty use. Welding torch, cutting attachment and regulators are approved by Underwriter and Wards Testing Laboratories after most severe tests. Every part tested individually for your protection. Precision-ground, hand-fitted joints prevent leakage. All parts coming in contact with gas are made of non-ferrous metals to prevent rust and corrosion. Welds metal up to 2 in. thick; cuts steel up to 6 in. thick.

WELDING TORCH. Balanced equal pressure type. Non-flash mixer handles all size tips—no extra mixing chamber needed for larger sizes. Mixing chamber outside of torch handle for maximum safety. Precision fit needle valves for fine adjustments. Heavy knurled grips—torch can be turned off without disturbing regulator settings. Swivel-type tips permit right-or left-hand operation; will not backfire. Torch is strongly made of drawn brass, is 14 to 19 in. long with tips. Ribbed handle prevents slipping. With 3 solid-drawn copper tips, sizes T-3, T-5 and T-7; weld up to 2-in. metal. Tips are nozzle type, have 4 times flame range of ordinary fixed tips.

CUTTING ATTACHMENT. Cuts steel up to 6 in. thick. Convenient lever control of oxygen flow for faster cutting. Solid drawn brass, 10½ in. long. With two solid drawn copper cutting tips, sizes C-1 and C-3. New LP gas cutting tips are now available; see (12) below.

OXYGEN AND ACETYLENE REGULATORS. Wards exclusive patented on-off features insure correct usage and long life under continuous service. Regulators operate under gas pressure, don't depend on springs for shut-off. Special shearing mechanism prevents dangerous build-up on low pressure side of regulators. Large capacity diaphragm, 7 sq. in., for more sensitive control, constant even flame. Double cone inlet screen keeps out dust and dirt. 2¾-in. diam. gauges are clearly marked, easy to read. Oxygen regulator has 100- and 3000-lb. gauges showing pressure and cubic foot content of tank. Acetylene regulator has 50- and 5000-lb. gauges and adapter to fit standard size cylinders.

Outfit also includes: welders' goggles, torch lighter, wrench, 2 instruction books, two 25-ft. lengths of welding hose (¼-in. inside diam.)

84 KR 5815 MB—Ship. wt. 25 lbs. *Mailable.* $10 Down.....Cash $99.50

GAS WELDING OUTFIT ONLY 79.95

WARDS MASTER (BEST) QUALITY. Same construction as outfit (1) above but without cutting accessories. Includes: welding torch; 5 welding nozzle tips, sizes T-1, T-3, T-5, T-7 and T-9—weld metal up to 2 in.; oxygen regulator; acetylene regulator with adapter; goggles; torch lighter; wrench; 10 coppered steel and 8 cast-iron welding rods; 3 Tobin bronze brazing rods; ¾ lb. of cast-iron flux; ¾ lb. of brazing flux; two 12½-ft. welding hoses; 2 illustrated oxy-acetylene welding manuals containing easy-to-follow instructions.

84 KR 5810 MB—Ship. wt. 37 lbs. *Mailable.* $8 Down on Terms.....Cash $79.95

WELDING TORCH ONLY. Same as shown and described in outfit (1) at left.

84 KR 5812—Welding tips not included. Order separately (7) below. Ship. wt. 2 lbs. 4 oz..$14.95

OXYGEN AND ACETYLENE REGULATORS. Shown and described in outfit (1) at left.

84 KR 5813—Oxygen Regulator only. Ship. wt. 6 lbs. 8 oz. $2.50 Down.....Cash $22.95

84 KR 5814—Acetylene Regulator only. Ship. wt. 6 lbs. 8 oz. $2.50 Down.....Cash 21.95

[2] WELDING HELMET. Insulated fiber; securely riveted seams.

84 KR 5965 L—No. 10 lens. Ship. wt. 2 lbs. 2 oz.....$3.95

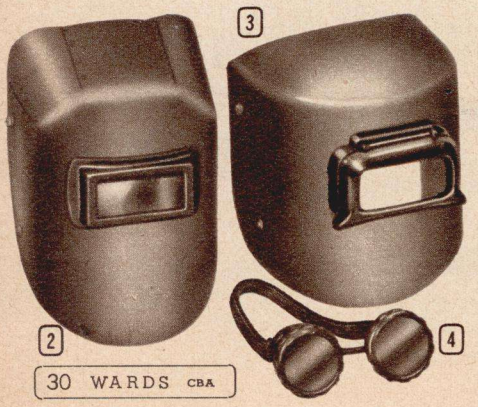
[3] PROFESSIONAL HELMET. Strong insulated fiber; seamless. Flipper front lens holder.

84 KR 5966 L—Order lenses (26, 27) opposite page. Ship. wt. 2 lbs. 12 oz.....$7.75

IMPORTANT FACTS YOU SHOULD KNOW ABOUT GAS WELDERS

OXY-ACETYLENE WELDERS offer complete portability—they can be trucked right to the job. They produce high temperatures, up to 6300°F., enough to melt practically every type of common metal. They are the most practical type for welding light steel, and are superior to electric arc welders as cutting tools; with correct size nozzle, will cut almost any desired thickness of metal. Also well suited for brazing and soldering.

Most important parts of a gas welder are the regulators, the hose and the torch. Separate regulators for oxygen and acetylene are provided, with scales showing pressure of gas and remaining cubic foot content of tank. Regulators and other parts which come in contact with gases should be made entirely of brass or other non-ferrous metals to prevent rust and corrosion. Separate hoses for the two gases are provided, red for acetylene, and green or black for oxygen. Hoses must be flexible, strong and not subject to deterioration due to gases. Two types of torches are used—one for welding, the other for cutting. Many sized tips are available for torches to use with various types or thicknesses of metal.



GAS WELDING ACCESSORIES 55c TO 14.95 ... 343 PAGE ARC WELDING BOOK 1.00

[4] GOGGLES. Meet Navy specifications. Ship. wt. 8 oz.

84 KR 5835—No. 5 green lens; cover lens.....$1.98

[5] [6] CAST-IRON BRAZING AND WELDING FLUX. Actual weight each, 1 lb.

(5) 84 KR 5837—For Brazing. Ship. wt. 1 lb. 4 oz.....55c

(6) 84 KR 5836—For Welding. Ship. wt. 1 lb. 4 oz.....55c

[7] WELDING NOZZLE TIPS. Fit Wards torches only. Solid copper; swivel type. Sizes: T-1, 3½ in.; T-3, 4 in.; T-5, 5½ in.; T-7, 7 in.; T-9, 8½ in.

84 KR 5811—*State size.* Ship. wt. each 10 oz.. Each $1.75

[8] BRAZING OUTFIT. Fits acetylene regulator, Prest-O-Lite, etc. Includes: soldering copper, paint burning tip, tank and hose connections, 5 ft. 3/16-in. hose.

84 KR 5802—With tip cleaner. Ship. wt. 2 lbs. 2 oz. $12.95

[9] [10] WELDING HOSE. 12½-ft. length, ¼-in. inside diameter. ½-in. outside diameter. Swivel fittings.

(9) 84 KR 5819—Red acetylene hose. Wt. 2½ lbs..$3.98

(10) 84 KR 5818—Green oxygen hose. Wt. 2½ lbs.. 3.98

[11] CUTTING ATTACHMENT. Solid drawn brass, 10½ in. long. Converts 84 KR 5810 MB into cutting outfit. Cuts steel up to 10 in. thick. Lever oxygen control. UL Approved. Tips not included.

84 KR 5820—Ship. wt. 2 lbs. 8 oz.....$14.95

[12] CUTTING TIPS. For (11). Fit Wards welding torches only. No. 1 cuts metal to 1 in.; No. 2 cuts to 2½ in.; No. 3 cuts to 6 in.; No. 4 cuts to 10 in.

NOTE: No. 4 for Acetylene only.

FOR ACETYLENE CUTTING. *State size wanted.*

84 KR 5816—Wt. ea. 6 oz. Ea.$3.45

FOR PROPANE "LP" CUTTING.

84 KR 5821—*State size.*

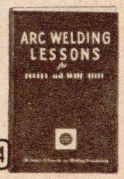
Ship. wt. ea. 6 oz....Each $3.45

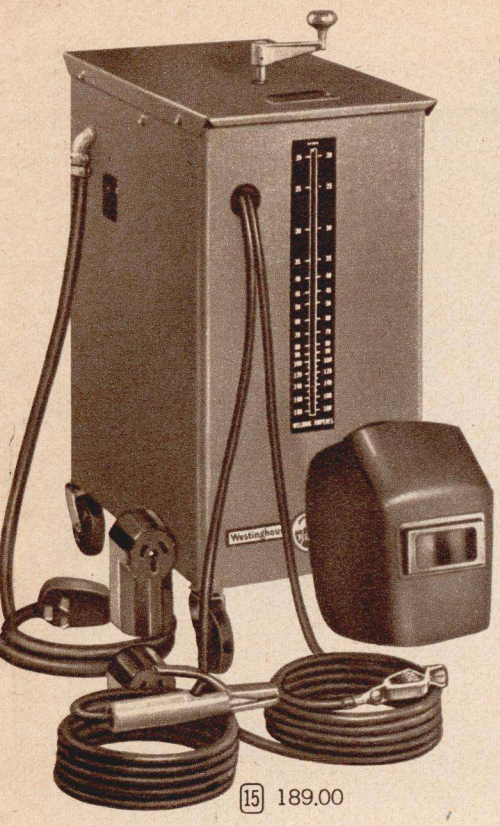
[13] TORCH LIGHTER. 2 flints.

84 KR 5809—Wt. 3 oz.....55c

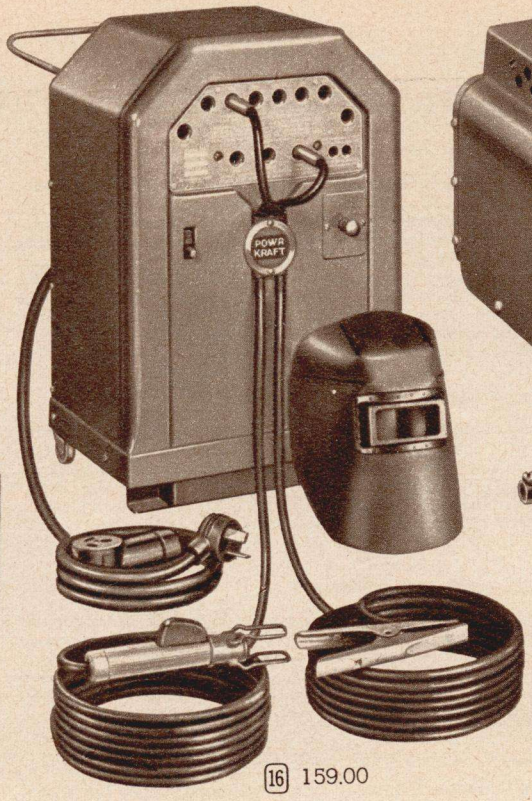
[14] ARC WELDING LESSONS and practical projects.

84 KRP 5981—*Postpaid*....$1.00

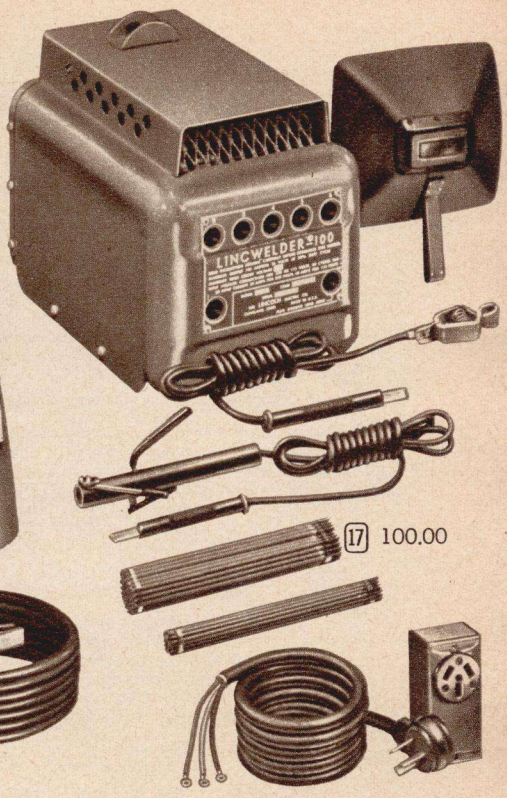




15 189.00



16 159.00



17 100.00

Powr-Kraft and Westinghouse Arc Welders . . . 10% Down

WESTINGHOUSE WELDERS 189.00 TO 251.50

230-VOLT SINGLE-PHASE 60-CYCLE AC. 20% duty cycle. Built-in primary circuit breaker prevents overloads. UL Approved. Includes: steel case 24½x19⅝x12 in., welding helmet, and accessories listed below. Check with local Electric Co. before ordering.

15 180-AMP. MODEL. Excellent for farm repairing, garage work, etc. Welding range from 20-ga. sheet metal to heavy plate; cuts up to 5/16-in. plate. Uses electrodes up to 3/16 in. Continuous output adjustment—no plugs, taps or switches to change for complete range from 20 to 180 amps. Maximum line draw 37 amps. with built in power factor correction capacitors. Power factor at rated load: 80%; arc volts 25; Maximum power used 6.8 kilowatts. Includes: 6-ft., No. 8, 3-conductor primary cable, plug and receptacle; 12-ft. No. 4 electrode and ground cables with electrode holder and ground clamp.
84 KR 5933 R—Ship. wt. 135 lbs. $19 Down; Cash $189.00

295-AMP. MODEL. Similar to (15) but designed for heavier work. Cuts up to ½-in. plate. Uses electrodes up to ¼ in. Has continuous current adjustment with 2 generously overlapping ranges: 20 to 130 amps.; 30 to 295 amps. Simple flip of switch determines range; easy turn of handle selects amperage. Has built in power factor correction capacitors. Power factor at rated load 80%; reduces installation costs. Maximum line draw 50 amps.; arc volts 25; max. power used 9.0 kilowatts. Includes: 20-ft. electrode cable with holder, 16-ft. ground cable with clamp—both No. 2 wire, 6-ft. primary with plug, receptacle.
84 KR 5934 R–Ship. wt. 175 lbs. $25.50 Down; Cash $251.50

POWR-KRAFT 230-VOLT AC WELDER 159.00

16 180-AMP. FARM AND GARAGE MODEL. UL Approved. For repair shop, garage, farm, etc. Welds steel and castings 1/32 to ½ inch thick; cuts up to 5/16-inch plate. Uses electrodes from 1/16 to 3/16 in. Makes welds equal in strength and soundness to those of larger industrial models. Excellent for repairing farm equipment, hard-surfacing wearing parts, welding auto frames, bumpers, and fenders; and for making your own tools and special machinery from angles, channel, plate and pipe. Choice of 24 heats gives complete selection throughout range from 20 to 180 amps. Has 20% duty cycle.

Operates on 220–240-volt single phase 50–60-cycle AC. Conforms to REA and NEMA specifications for limited-input welders. Operator safety assured by low 58-amp. secondary voltage. Maximum open circuit voltage 58 volts; arc volts 25; power factor at rated output 62%. Equipped with special switch to improve performance on low line voltage. Can also be used for brazing and soldering with proper accessories.

Industrial-type welded steel frame and housing. Case is 22¼x16¾x11 in., is easily moved on two rear wheels—handle for balancing. Class "B" nonflammable spun glass insulation protects heavy copper windings. Includes: 8 ft. 3-wire primary cable with plug and receptacle; 20 ft. No. 4 electrode cable with insulated holder; 15 ft. No. 4 ground cable and clamp; helmet with No. 10 protective lens and cover lens; illus. instruction manual. *Not Mailable.* Ship. wt. 194 lbs.
84 KR 5938 R—$16.00 Down.....Cash $159.00

100-AMP. "SELFWELDER" 100.00

17 POWR-KRAFT 115 OR 230 VOLT ARC WELDER. Entirely new type 100-amp. welder designed for both revolutionary new "Selfweld" process and conventional welding—requires no adjustments at any time. "Selfweld" process, developed by Lincoln Electric Co. makes arc welding almost as simple as turning on a light switch—anyone can weld without any previous experience. Special "Matchhead" electrodes, used with this method, strike their own arc—will not stick to workpiece when arcing. Simply place rod on workpiece, press starting switch on electrode holder—arc forms automatically. Adjustable leg on holder keeps electrode at correct angle while it deposits a uniform weld. Approved by UL and NEMA National Electrical Manufacturers Assoc.

SPECIFICATIONS: Welds anything from 20-gauge sheet metal up to heavy plate. Maximum 100 amp. output with 6 taps at 100 amp. intervals from 50 to 100 amps. Maximum open circuit voltage 70 volts. Duty cycle 20%. Uses electrodes to ⅛-in. diam. Use 40-amp. fuse on 110–120 volts; use 20-amp. fuse on 220–240 volts. For 60-cycle single phase AC only. Steel body 12x9x14 inches.

Includes: 8-ft. primary cable with 3-prong plug and receptacle; 8-ft. electrode cable with holder; 7-ft. ground cable with clamp; face shield; 3 lbs. assorted "Selfweld" electrodes; instruction manual. *Not Mailable.*
84 KR 5940 R–Ship. wt. 84 lbs. $10 Dn...Cash $100.00

ELECTRIC WELDING ACCESSORIES 10c TO 12.95

18 WELDERS GLOVES. Split horsehide.
84 KR 5960—Large. Ship. wt. 1 lb...Pair $3.19

19 ERGOLYTE TWIN CARBON ARC TORCH. For any arc welder. Automatic switch-off. For preheating, brazing, etc. Takes up to ⅜-in. carbons.
84 KR 5914 M—15¾ in. long. Wt. 3½ lbs....$12.95

20 WELDERS' WIRE BRUSH. Steel bristles.
84 KR 5969—Ship. wt. 12 oz.....35c

21 ELECTRODE HOLDER. Holds electrodes up to ¼ in. Rated 300 amps. Air cooled handle.
84 KR 5916—Ship. wt. 1 lb. 2 oz.....$2.45

22 GROUND CLAMP. Jaw spread 2¾ in.
84 KR 5973—300-amp. cap. Ship. wt. 1 lb.$1.95

23 WELDING CABLE. Rubber-covered copper.
84 KR 5963 H—No. 4 CABLE. 200 amps. Stranding 1064x34. *State length.* Wt. 4 oz.....Per foot 19c
84 KR 5971H—No. 1 CABLE. 300 amps. Stranding 2109x34. *State length.* Ship. wt. 8 oz.....Per foot 35c

24 WELDING CABLE LUGS. Fit Cable (23).
84 KR 5964—Lug for No. 4 cable. Wt. 1 oz..17c
84 KR 5972—Lug for No. 1 cable. Wt. 1 oz.....33c

25 COPPER COATED CARBONS. Use with Torch (19).
84 KR 5911—*State diam.*

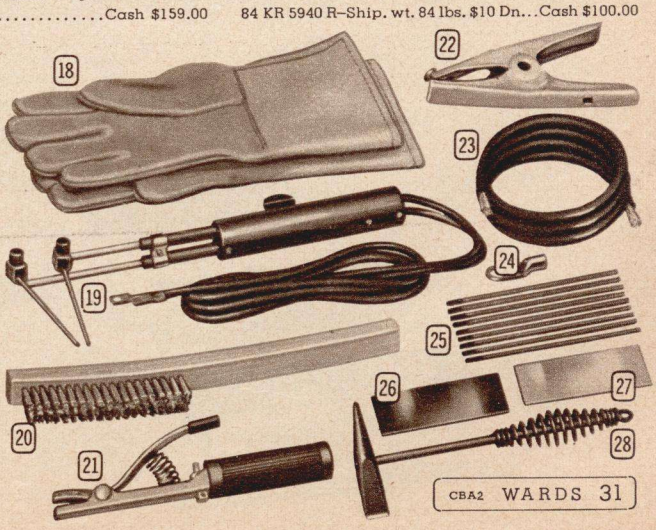
Diam.	Lgth.	Wt.	10 rods
5/32 in.	6 in.	1 lb.	$1.98
¼ in.	6 in.	1 lb.	95c
5/16 in.	6 in.	1 lb.	$1.19
⅜ in.	6 in.	1 lb.	1.45

6-IN. PLAIN CARBON RODS (not shown). ¼-in. diam.
84 KR 5912—Wt. 1 lb. 10 for 45c

26 PROTECTIVE LENS. 2x4¼ in. Use with (2), (3). Shade No. 9 for 3/32-in. rod; No. 10, ⅛ in.; No. 11, 5/32 in.; No. 12, 5/32 in. Wt. 1 oz.
84 KR 5961—*State No.* Ea. 95c

27 COVER LENS. For (2), (3).
84 KR 5962–Wt. 1 oz. Ea. 10c

28 CHIPPING HAMMER. Forged steel. 9½ in. long.
84 KR 5976—Wt. 1 lb.....$1.65



SEE NEXT PAGE FOR COMPLETE LISTINGS OF WELDING RODS AND ELECTRODES

Wards Convenient Monthly Payment Plan

Don't let lack of cash keep you from buying the items that you want. Use Wards Monthly Payment Plan to purchase the power tool equipment of your choice. Of course, paying cash is the most economical way to shop but it isn't always possible to do so. The reasonable charge for credit at Wards is well justified since you buy and use quality merchandise while paying for it. There are no hidden charges at Wards. Whether you pay all cash or use your credit at Wards, the price of the merchandise is the same. There are no hidden charges. You know exactly what you pay extra for the convenience of credit. The carrying charge as shown in the Table of Terms, applies only to the unpaid balance—the amount remaining after deducting the down payment. If your account is paid in full before the first Monthly Payment is due there will be NO carrying charge.

HOW TO OPEN AN ACCOUNT

Write your order in the usual way on one of our regular order blanks, being sure the order totals $20 or more, then sign and fill in the application for credit on the back. Minors will have parent or guardian sign and fill in application. Enclose check or money order for the Down Payment and mail to the Ward Mail Order House nearest you. There will be a short delay for credit investigation which is confidential. If you live near a Ward Store or Ward Catalog Office see the credit manager there, he will give you courteous, prompt service and handle all the necessary details for you if you desire.

REQUIRED DOWN PAYMENT

The minimum Down Payment required on merchandise in this catalog is 10% (one-tenth) except on Spraying Equipment on which 20% down is required and Shopsmith on which we offer special low down payments as quoted on Page 3. If you will make your down payment substantially larger than this minimum, you can save on the carrying charges and may also reduce the amount to pay monthly. It is to your advantage to make as large a down payment as you can conveniently spare.

AMOUNT TO PAY EACH MONTH

Add up your purchases, including any tax or shipping charges to be advanced by Wards, then subtract the amount for Down Payment as explained above. The remainder is the Unpaid Balance to which a carrying charge is added. Table of Terms shows amount of carrying charge and amount to pay Monthly. Minimum Monthly payment in all instances is $5.

WARDS "ADD-ON" PLAN

If you have an account with us, you may make additional purchases of Power Tools and Welding Equipment in orders of $10 or more to be added to your account. Just sign and fill in the "Add-On" form on the back of the order blank. The amount of your new purchase, plus our usual carrying charge of 10%, is then added to the amount you owe. Your present monthly payment will be increased $1.00 unless the new balance requires a larger payment according to the table of terms at right. No down payment is required on "Add-on" orders. However, if you wish to send a down payment with your order, you will reduce the carrying charge and the amount to pay monthly.

TABLE OF TERMS

If Unpaid Balance is	We Will Add for Carrying Charge	Monthly Payment
20.00 to 22.00	2.00	
22.01 to 24.00	2.25	
24.01 to 26.00	2.50	
26.01 to 28.00	2.75	
28.01 to 30.00	3.00	
30.01 to 33.00	3.25	5.00
33.01 to 36.00	3.50	
36.01 to 40.00	4.00	
40.01 to 45.00	4.50	
45.01 to 50.00	5.00	
50.01 to 55.00	5.50	
55.01 to 60.00	6.00	
60.01 to 65.00	6.50	6.00
65.01 to 70.00	7.00	
70.01 to 75.00	7.50	7.00
75.01 to 80.00	8.00	
80.01 to 85.00	8.50	8.00
85.01 to 90.00	9.00	
90.01 to 95.00	9.50	
95.01 to 100.00	10.00	9.00
100.01 to 110.00	10.50	
110.01 to 120.00	11.50	10.00
120.01 to 130.00	12.50	
130.01 to 140.00	13.50	
140.01 to 150.00	14.50	11.00
150.01 to 160.00	15.50	
160.01 to 170.00	16.50	
170.01 to 180.00	17.50	12.00
180.01 to 190.00	18.50	
190.01 to 200.00	19.50	13.00
200.01 to 210.00	20.00	
210.01 to 220.00	20.50	14.00
220.01 to 230.00	21.00	
230.01 to 240.00	21.50	15.00
240.01 to 250.00	22.00	
250.01 to 260.00	22.50	16.00
260.01 to 270.00	23.50	
270.01 to 280.00	24.50	17.00
280.01 to 290.00	25.50	18.00
290.01 to 300.00	26.50	19.00

Terms subject to change.
Write for terms on larger orders.

NATIONALLY KNOWN LINCOLN ELECTRODES

(A) LINCOLN "SELFWELD" ELECTRODES. For mild steel. "Matchhead" tip permits quick, easy start. Heavy, powdered-iron rods give steady, even flow of molten metal. Use with (17) on Page 31, or any other electric welder. 8 in. long.

84 KR 5994—*State diameter wanted.*

Diam.	Rods per pkg.	Ship. wt.	5-lb. pkg.
5/64 in.	About 200	5 lbs. 8 oz.	$3.95
3/32 in.	About 150	5 lbs. 8 oz.	3.19

(B) LINCOLN "FLEETWELD" AND "PLANEWELD" ELECTRODES. For low current, general purpose use on mild steel. Flux coating resists undesirable inclusions in weld. Sizes 5/64 and 3/32 in. are "Planeweld No. 2"; other sizes are "Fleetweld No. 47."

84 KR 5991—*State size wanted.*

Size	Amps.	Ship. wt.	Price
5/64 x 9 in.	25– 45	8 lbs.	7½ lbs. $2.75
3/32 x 12 in.	40– 70	11 lbs.	10 lbs. 2.75
1/8 x 14 in.	60–140	11 lbs.	10 lbs. 2.19
5/32 x 14 in.	90–200	11 lbs.	10 lbs. 2.19

LINCOLN "FERROWELD" ELECTRODES. (Not shown). Use with cast iron where extreme machinability is not required. 80-amp. range. 1/8-in. diameter, 14 in. long. Ship. wt. 11 lbs.

84 KR 5992—Per 10 lb. package.. .....$2.75

(C) LINCOLN "ABRASOWELD" ELECTRODES. Designed for hard surfacing work. Build up new and worn parts to resist impact.

84 KR 5993—*State diameter.*

Diam.	Amp. Range	Lgth.	Wt.	10 lbs. for
5/32 in.	75–200	14 in.	11 lbs.	$4.45
3/16 in.	110–250	14 in.	11 lbs.	4.25

(D) LINCOLN "FLEETBRAZE" ELECTRODES. For brazing work. Includes 1 lb. of 3/32-in. flux coated rods. Ship. wt. 1 lb. 8 oz.

84 KR 5985—1 lb. carton.....$2.45

FOR WELDING EQUIPMENT, SEE PAGES 30–31

OXY-ACETYLENE RODS

(E) BRONZE BRAZING RODS. Melt at 1600°F. About 36 in. long. Ship. wt. 1 lb. 8 oz.

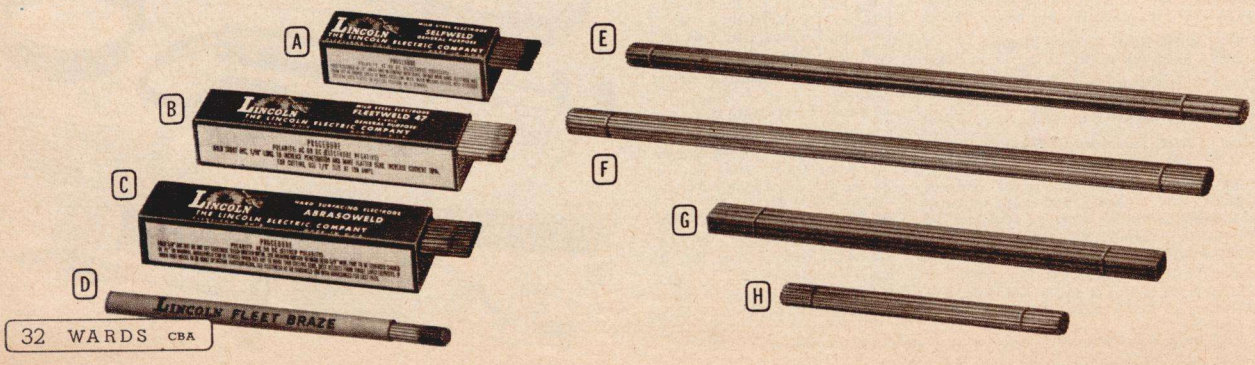
Cat. No.	Diameter	Rods per lb.	1 lb. for
84 KR 5857 H	1/8 in.	About 6	$1.19
State diam.	3/16 in.	About 3	1.19

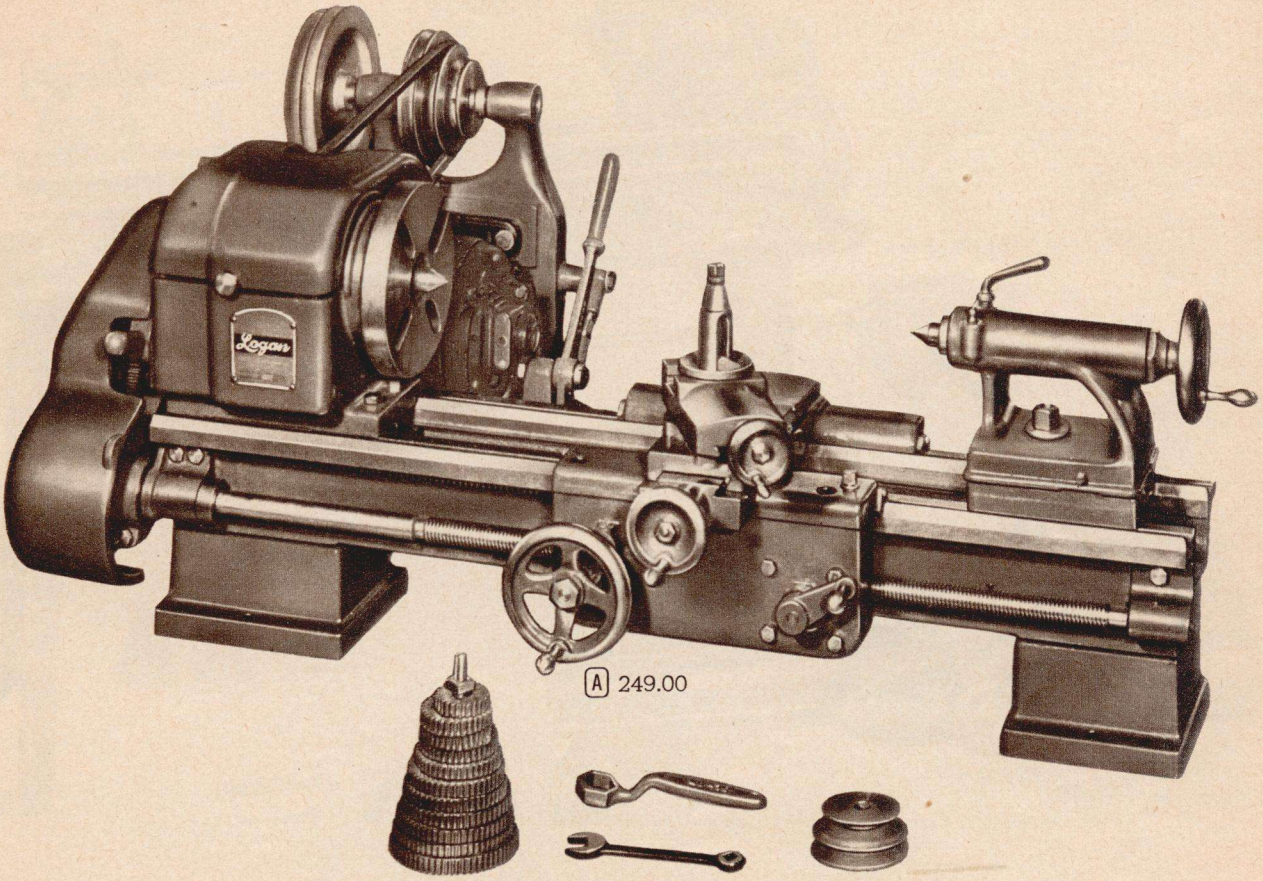
(F) (G) MILD STEEL, CAST IRON WELDING RODS. Copper coated low carbon steel. Mild Steel rods are about 36 in. long. Cast Iron about 24 in. Ship. wt. 5 lbs. 8 oz. *State diameter wanted.*

Cat. No.	Diameter	Rods per 5 lbs.	5 lbs. for
	1/16 in.	About 164	$1.45
(F) Mild Steel	1/8 in.	About 40	1.15
84 KR 5856 H	3/16 in.	About 18	1.15
	1/4 in.	About 10	1.15
(G) Cast Iron	3/16 in.	About 20	$1.75
84 KR 5855 H	1/4 in.	About 12	1.59

(H) MACOLOY BRAZING RODS. Designed for brazing mild steel. Melt at 1180°F. About 26 rods, 1/8-in. diameter. 14 in. long.

84 KR 5865—Ship. wt. 1 lb. 4 oz.....$3.45





[A] 249.00

Nationally Known Logan 9-Inch Metal Lathe

BACK GEARED SCREW CUTTING LATHE. . . .18 IN. BETWEEN CENTERS, ACCURATE TO .001 INCH 249.00

[A] A fine production tool, especially designed for operations requiring a high-speed lathe capable of sustained accuracy. Built to perform within .001 in. for all operations within its capacity. Headstock runs on pre-loaded New Departure ball bearings. Smooth, high speed operation with minimum spindle deflection—greater accuracy. Grease sealed — require no further lubrication for life. Self-lubricating bronze bearings at other points assure dependable service—low cost operation. Widely used by master mechanics, garages, trade schools, etc. Detailed specifications below.

CAPACITY: Distance between centers 18 in. Swing over bed and saddle wings 9 in.; swing over cross slide 5 in. Length of bed 33¼ in. Width of bed across ways 6 1/16 in. Special alloy bed casting—two flat and two "V" ways are precision-ground to within .0005 inch of parallelism within the working surface. Total spindle runout 12 in. from bearings is less than .001 in. Reversible power longitudinal feed. 46 thread selections 4 to 216 right or left-hand.

HEADSTOCK: Tempered, precision-ground steel spindle rides on grease-sealed New Departure ball bearings for smooth, dependable and accurate performance. Spindle nose diam. 1½ in.—8 right-hand threads per in. No. 3 Morse Taper with adaptor to No. 2 Morse Taper. Hole through spindle 25/32 in. Back gear shaft has bronze bearings.

TAILSTOCK, CARRIAGE AND COMPOUND REST: Tailstock spindle travels 2⅜ in. is graduated in 1/16ths — takes No. 2 Morse Taper accessories. ½ in. offset for taper turning. Cross slide graduated in thousandths—travels 5½ in. Cross feed screw mounted on self-lubricating bronze bearings. Compound rest swivel graduated 90° in both directions. Tool post opening for tool holder shank ⅜ by ¾ inch. For use with cutter bits up to ¼-inch size.

DRIVE: Countershaft assembly has self-lubricating bronze bearings. Three-step "V" belt cone pulley—motor mounts on countershaft bracket. 30x½-inch "V" belt from motor pulley to countershaft; 44x½-inch "V" belt from countershaft to headstock. 12 various spindle speeds—55 to 1450 RPM.

LATHE INCLUDES FOLLOWING ACCESSORIES AND PARTS: 17 machine cut semi-steel change gears (6 installed on lathe), 6-in. face plate, two 60° centers, tool post holder, two-step motor pulley (*State ½ or ⅝-in. bore*). Also includes wrench, complete parts list and instructions.

Recommended for use with ⅓ HP, 1725 RPM, single shaft motor listed below. (See full description on Page 26). Accessories (B) and (C) listed below fit this lathe only. Other accessories on Pages 36 and 37 may also be used with this lathe. Shipped promptly from Factory in Chicago, Ill.

84 KR 2129 F—Ship. wt. 240 lbs. *Not Mailable.* $25 Down.....Cash $249.00

83 KR 4567 MB—⅓ HP Motor for Above. Ship. wt. 24 lbs. $2 Down, Cash 19.95

ACCESSORIES FOR 9-IN. LOGAN LATHE 3.98 AND 11.50

[B] DRUM REVERSING SWITCH. Reverses spindle direction by reversing motor. Capacity up to 1 HP, 550-volts, AC. With switch box and 3-ft. rubber covered cord. UL Approved. Ship. wt. 3 lbs. 8 oz.

84 KR 2216 K—Mailed promptly from Chicago Factory.....$11.50

[C] THREADING DIAL. Indicates proper point at which to engage half-nut lever when cutting threads, so tool will enter same groove for each cut. Eliminates reversing drive at end of each cut. Ship. wt. 1 lb. 8 oz.

84 KR 2215 K—Mailed promptly from Chicago Factory.....$3.98

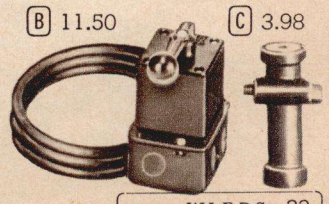
SEE POWR-KRAFT AND LOGAN 10 AND 11-INCH METAL LATHES ON TWO FOLLOWING PAGES. ACCESSORIES ON PAGES 36 AND 37.

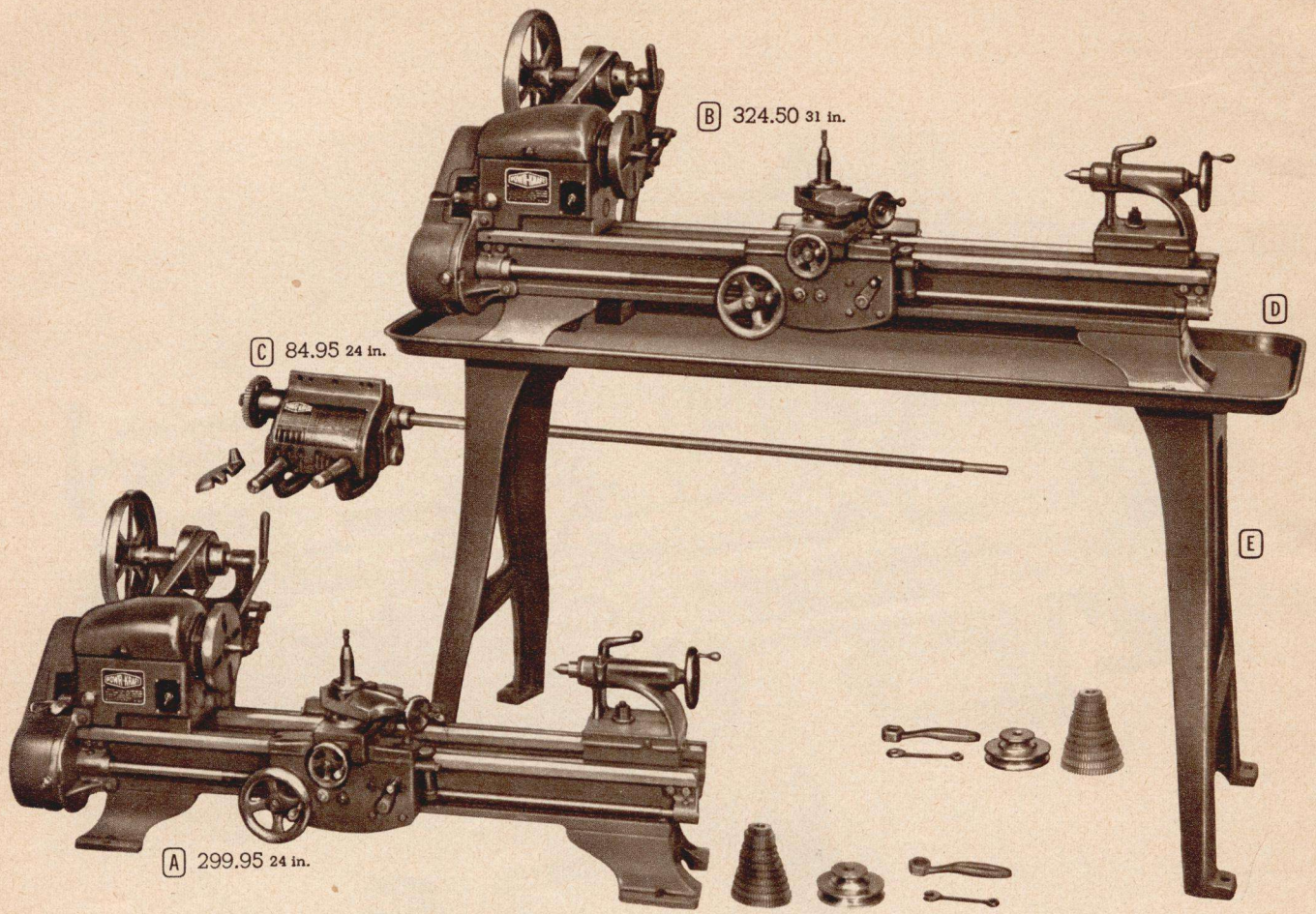
THE MODERN SCREW-CUTTING LATHE . . . "HEART OF THE MACHINE SHOP"

Of all the many modern industrial machines, few have the mechanical capacity of today's metal lathe. Its ability to perform a wide variety of operations on iron, steel, wood and plastics makes it indispensible to the machine or experimental shop. Turning, milling, drilling, grinding, boring, cutting threads and winding coils and springs are just a few of its many applications. In fact, nearly all finished manufactured products somehow depend on work done by a precision metal lathe.

Great care and consideration has been given to the construction of all Ward-listed lathes to assure you of dependable, accurate performance within their capacity, for whatever type of work you require. All are production models—accurate to .001 inch for manufacturing, machine shops, tool rooms or trade school workshops. These lathes are among the finest obtainable, and—given the care that is due all fine precision machinery, they offer you years of long-lasting and faithful service.

[B] 11.50 [C] 3.98





Powr-Kraft 10-in. Back-Geared Screw-Cutting Lathes

CHOICE OF TWO SIZES—24 AND 31 IN. BETWEEN CENTERS 299.95 AND 324.50

Production models capable of years of precision operation. Designed to operate at high speed—guaranteed accurate to within .001 inch. Pre-loaded, grease-sealed New Departure ball bearings in headstock for smoother operation; bronze bearings at 18 other points of wear.

CAPACITY: Swing over bed to 10 in.; over saddle cross slide 6⅛ in. Bed 5⅛6 in. wide, of alloy castings. Two flat, two prismatic "V" ways. Machine cut semi-steel gears—bull gear, back gears ⅝ in. wide. With change gears for 46 thread selections. 4 to 216 right or left hand threads per in. Back gears enclosed.

HEADSTOCK: Tempered, precision-ground steel spindle rides on two sets of New Departure ball bearings. Spindle nose diam. 1½ in.—8 right hand threads per in. No. 3 Morse taper spindle with adapter to No. 2 Morse taper. Hole through spindle 25/32 in. Collet capacity ½ in.

TAILSTOCK, CARRIAGE AND COMPOUND REST: Tailstock spindle travels 2⅜ in., graduated in 16ths, takes No. 2 Morse taper accessories. 11/16 in. set-over for taper turning. Self-ejecting center. Carriage has power cross feed, longitudinal feed. Cross slide graduated in thousandths, travels 6¼ in. Cross feed screw mounted in self-lubricating bronze bearings. Compound rest top slide graduated in thousandths, travels 2¼ in., swivels 90° both directions, locks firmly at any angle. Carriage has 9-in. bearing surface on "V" and flat ways. Tool post opening for tool holder shank ⅜x¾ in. Tool holders and bits, Page 37.

DRIVE: 3-step cone pulley on countershaft with flat belt drive to headstock. 2-step "V" belt drive from "V" motor pulley to flat countershaft pulley. Countershaft and motor bracket included. Gives a choice of 12 speeds ranging from 30 to 1450 RPM.

LATHES INCLUDE: 17 change gears (6 installed on lathe); 6-in. face plate; two 60° centers; tool post holder; thread cutting dial; flat belt; motor pulley (½, ⅝ or ¾-in. diam. bore); wrenches; parts list and instructions. Gray finish. *Not Mailable.* Shipped promptly from Stock. See Pages 36 and 37 for a complete listing of accessories.

24-IN. POWR-KRAFT BENCH MODEL 299.95

(A) 24 IN. BETWEEN CENTERS LATHE. 43⅛-in. bed. *State ½, ⅝ or ¾ in. motor pulley bore.* Ship. wt. 335 lbs.
84 KR 2130 R—$30 Down on Terms.....Cash $299.95

24-IN. LATHE WITH MOTOR. ½-HP 1725 RPM capacitor motor (83 KR 4541MB, Page 26), 41-in. "V" belt. Wt. 363 lbs.
84 KR 2133 R—$32.50 Down on Terms...Cash $321.50

31-IN. POWR-KRAFT BENCH MODEL 324.50

(B) 31 IN. BETWEEN CENTERS LATHE. 50-in. bed. *State ½, ⅝ or ¾-in. motor pulley bore.* Ship. wt. 357 lbs.
84 KR 2136 R—$32.50 Down on Terms.....Cash $324.50

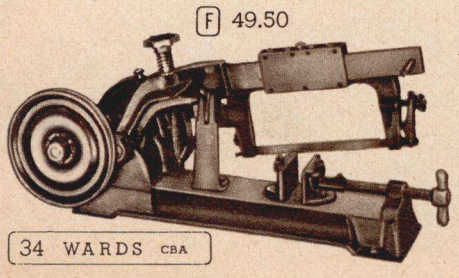
31-IN. LATHE WITH MOTOR. ½-HP 1725 RPM capacitor motor (83 KR 4541MB, Page 26), 41-in. "V" belt. Wt. 382 lbs.
84 KR 2128 R—$35 Down on Terms.....Cash $345.95

QUICK CHANGE GEAR BOXES

(C) Convert Powr-Kraft 10-in. metal lathes to quick change gear lathes. Corrected lead screw included. Provides 48 threads and feeds in either direction to carriage. By adjusting two levers, screw threads from 8 to 224 per in. are available. Changing 24-tooth stud gear for 48-tooth stud gear furnished with lathe, adds threads from 4 to 7 per in. Longitudinal power feeds .0044 to .2500 in. per revolution of spindle. Power cross feed same as longitudinal feed. Semi-steel gears, bronze self-lubricating bearings. Mailed promptly from Chicago Factory. Pay postage from there.
84 KR 2138 K—Fits (A), and lathe No. 700. Wt. 16 lbs. $8.50 Dn. Cash $84.95
84 KR 2139 KB—Fits (B) above. Ship. wt. 25 lbs. $9 Down.....Cash $87.95

(D) STEEL CHIP PANS. For lathes (A) and (B) above. Rolled rim. *Mailable.* Ship. wts. 22, 27 lbs.
84 KR 2141MO—Fits 24-in. lathe .$15.95
84 KR 2137 MO—Fits 31-in. lathe. 17.95

(E) CAST-IRON LEGS. Fit both chip pans above. Wt. 81 lbs. *Not Mail.*
84 KR 2140 R—$2.50 Dn...Pair $24.50



POWR-KRAFT BELT-DRIVEN POWER HACK SAW . . . STATIONARY TYPE 49.50

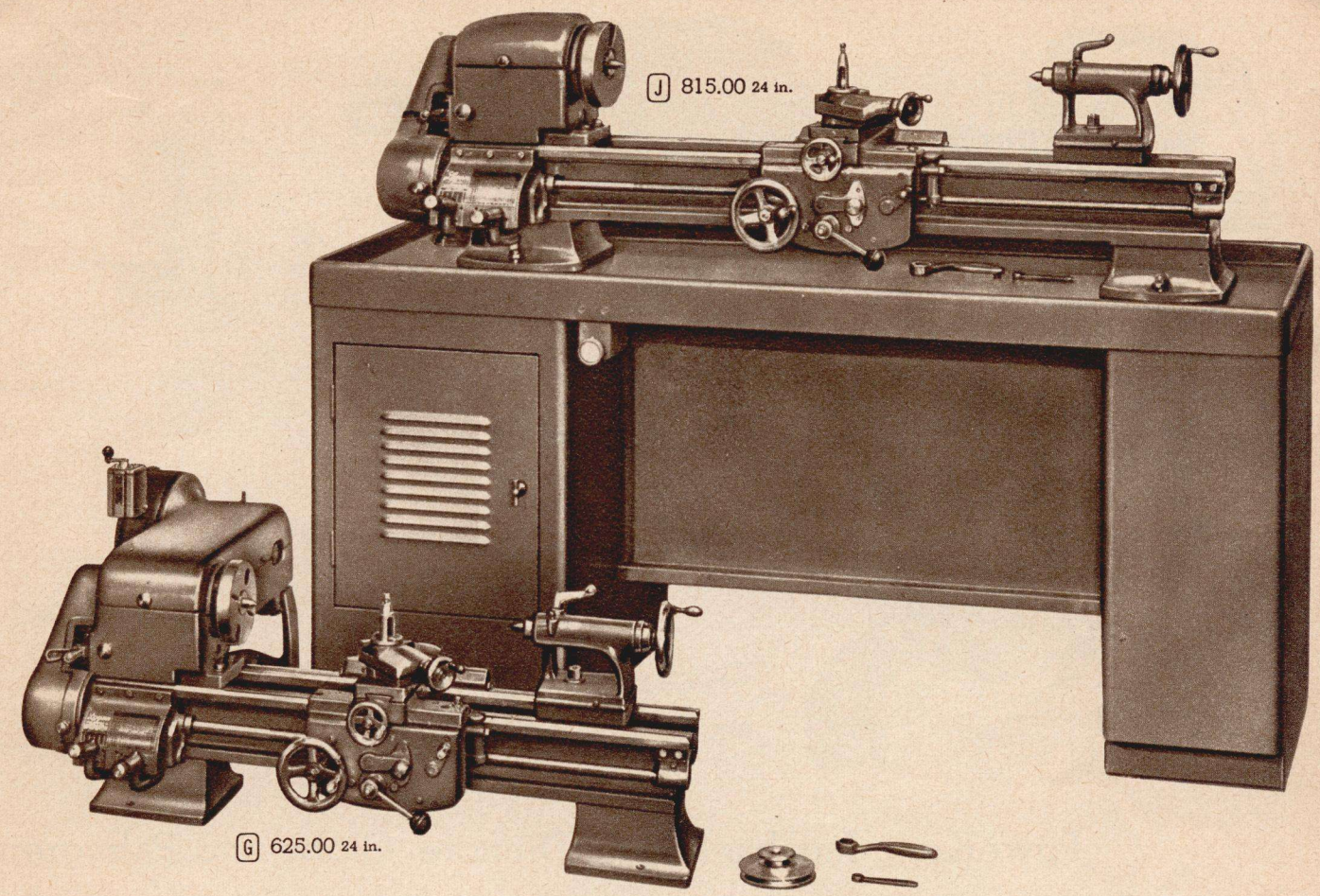
(F) Use in small production shops or for general, everyday run of small stock cutting. Castings of close-grained gray iron. Cam is integral with machine cut gear—controls pressure on forward stroke of blade, insures pressure relief on back stroke—for smooth cutting, longer life. Bronze bearings give dependable performance.

Equipped with cast-iron vise—jaws 4 in. wide, 2 in. deep—opens to 4 in. Swivels to permit angle cutting from 0 to 45 degrees. Capacity 4x4 in. Length of stroke 4½ in.—90 to 100 strokes per min. Size 8¼ in. wide, 29 in. long, 13 in. high.

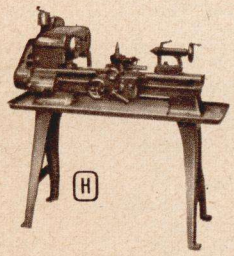
Includes: 12x⅝-in. blade, 8-in. diam. "V" machine pulley. Ship. wt. 80 lbs. *Not Mailable.*
84 KR 2403 R—Saw only. $5 Down....Cash. $49.50

HACK SAW WITH MOTOR. Includes hack saw and ⅓-HP split-phase motor (83KR4506MB, Page 26), 2½-in. diam. "V" motor pulley, 44-in. "V" belt.
84 KR 2401R—Wt. 103 lbs. $6.50 Dn., Cash $61.75

POWER HACK SAW BLADES (not shown). For saw above. High-speed Molybdenum steel. 12 in. long, ⅝ in. wide. 14 teeth per inch.
84 KR 4486—Ship. wt. pair, 5 oz.....Pair $1.09



Logan 11-in. Quick Change Gear Production Lathes



BENCH, FLOOR AND PEDESTAL BASE MODELS—24 AND 36 IN. BETWEEN CENTERS

Fine quality production lathes built to rigid and exacting specifications—accurate to within .001 in. For manufacturing, tool rooms, school shops, etc. Special features include: (1) sealed, pre-loaded New Departure ball bearing spindle mounting, requires no adjustment—16 speeds from 50 to 1430 RPM; (2) ball bearing countershaft assembly; (3) self-lubricating bronze bearings at vital wear points; (4) automatic oil-type apron operates from spline in lead screw through worm drive and friction clutch; half nut drive from lead screw thread for thread cutting; (5) gears, pulleys and belts completely guarded; (6) precision-ground "V" and flat way bed; (7) back gears enclosed in headstock and are engaged and disengaged easily by conveniently located knob on front of headstock.

CAPACITY: Swing over bed to 11 in.; over saddle cross slide, 6⅛ in. Bed 6 15/16 in. wide, of seasoned alloy castings—internal stresses removed. Two flat, two prismatic "V" ways are precision ground. Machine cut semi-steel gears—not die cast. Bull gear and back gears ¾ in. wide. Gears for 48 thread selections from 4 to 224 per in.—right or left.

HEADSTOCK: Precision-ground steel spindle rides on pre-loaded, sealed New Departure ball bearings. Spindle nose diam. 2¼ in.—8 right-hand threads per in. Spindle adapter furnished to reduce spindle nose taper to No. 2 Morse taper. Hole through spindle 1⅜ in. Maximum collet capacity 1 inch with No. 84 KR 2194K draw-in collets listed on Page 37.

TAILSTOCK, CARRIAGE AND COMPOUND REST: Tailstock spindle travels 4 in.; graduated in 16ths, takes No. 2 Morse taper accessories. 11/16 in. set-over for taper turning. Carriage is fully equipped with power cross feed and power longitudinal feed. Cross slide travels 6¼ in., graduated in thousandths. Cross feed screw mounted on self-lubricating bronze bearings. Compound rest travels 2¼ in., graduated in thousandths, swivels 90° in both directions. Tool post opening for tool holder shank ⅜x¾ in. See Pages 36 and 37 for complete listing of tool holders, cutting bits and other accessories.

COUNTERSHAFT ASSEMBLY: Countershaft is mounted on grease-sealed ball bearings for long, trouble-free operation; completely enclosed and guarded. All "V" belt drive. "V" belts and pulleys included with lathes.

ACCESSORIES INCLUDE: 6-in. face plate; two 60° centers; threading dial; threading chart; spindle nose adapter to No. 2 Morse taper; tool post holder and wrench; tailstock wrench; parts list; instruction book and 2-step "V" motor pulley (*state ½, ⅝ or ¾-in. bore*). Motor not included. Order ¾-HP single-phase motor separately, see 83 KR 4581MO, Page 27. 3-phase motor, for 220/440 volt 3-phase current only, listed at bottom of this page. Lathes shipped in 15 days from Factory in Chicago; pay Frt. from there.

FOR ADDITIONAL LATHE ACCESSORIES SEE FOLLOWING TWO PAGES.

LOGAN BENCH AND FLOOR MODELS 625.00 TO 712.50

G BENCH MODELS. Ht. 21 in. Without chip pan or legs. Order single-phase motor (83 KR 4581MO, Page 27) or 3-phase 220/440 v motor below.

24 IN. BETWEEN CENTERS LATHE. 43⅛-in. bed. Length overall, 54 in.
84 KR 2222 F—Ship. wt. 505 lbs. $62.50 Down on Terms.....Cash $625.00

36 IN. BETWEEN CENTERS LATHE. 55⅛-in. bed. Length overall, 66 in.
84 KR 2220 F—Ship. wt. 550 lbs. $66 Down on Terms.....Cash $660.00

H FLOOR MODELS. Ht. 48½ in. With heavy-gauge steel chip pan; has welded corners, rolled rim. Close-grained cast-iron legs. Order single-phase motor (83 KR 4581MO, Page 27) or 3-phase 220/440 v motor below.

24 IN. BETWEEN CENTERS LATHE. 43⅛-in. bed. Length overall, 54 in.
84 KR 2223 F—Ship. wt. 615 lbs. $67.50 Down on Terms.....Cash $675.00

36 IN. BETWEEN CENTERS LATHE. 55⅛-in. bed. Length overall, 66 in.
84 KR 2221F—Ship. wt. 665 lbs. $71.50 Down on Terms.....Cash $712.50

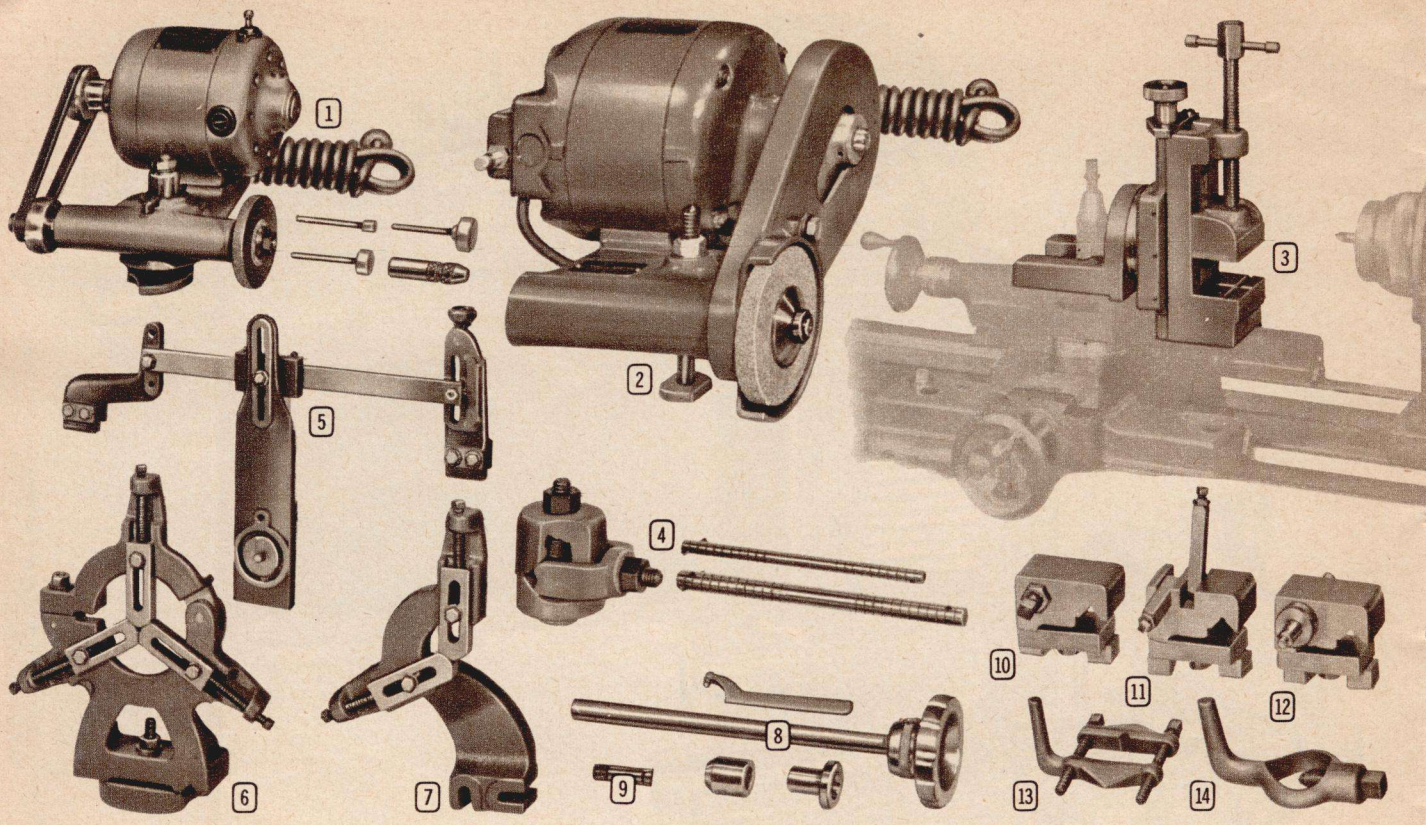
LOGAN PEDESTAL BASE MODELS 815.00 AND 860.00

J PEDESTAL BASE MODELS. Have all precision engineered features listed above plus streamlined steel pedestal base which encloses underneath drive. Trim, compact base with no protruding parts saves valuable floor space, is only 21 in. wide. Gears, pulleys and belts completely enclosed for operator safety. Switches and controls are conveniently located at operator's fingertips for instantaneous control. Ball bearing drive assembly, enclosed in left compartment, transmits power to lathe spindle. Lever operated belt tension release for changing belt steps. Height overall, 48¾ in. Order ¾-HP, 1725 RPM single-phase motor, (83 KR 4581MO, Page 27) or 3-phase 220/440 v motor at bottom of this page. Accessories are listed on Pages 36 and 37.

24 IN. BETWEEN CENTERS LATHE. 43⅛-in. bed. Length overall, 59 in.
84 KR 2224 F—Ship. wt. 810 lbs. $81.50 Down on Terms.....Cash $815.00

36 IN. BETWEEN CENTERS LATHE. 55⅛-in. bed. Length overall, 70½ in.
84 KR 2225 F—Ship. wt. 870 lbs. $86 Down on Terms.....Cash $860.00

3-PHASE MOTOR FOR LATHES ABOVE. ¾-HP Ball Bearing. 1725 RPM. 40° C. continuous duty type. Open drip-proof construction.
83 KRP 4652 K—For 220/440-V, 60-cycle AC, 3-phase only. ⅝ x 1⅞-in. shaft. Shipped *Prepaid* from Chicago Factory.....$52.00



Powr-Kraft, Jacobs, Logan, Dumore, Globe and Palmgren

DUMORE TOOL POST GRINDERS 65.00 AND 82.50

[1] PRECISION INTERNAL AND EXTERNAL GRINDER. For small jobs in machine shops, industrial schools, etc. Accurate to .0001 in. Fits Powr-Kraft and Logan 10 and 11-in. lathes. Used for sharpening, cylindrical grinding, precision industrial grinding. Ball bearing spindle has two speeds—10,000 and 22,500 RPM. 1/14-HP 110-120 volt AC-DC motor is dynamically balanced.

Takes ⅛ to 2-in. diam. wheels. Internal grinding capacity from ½-in. or larger diam. to 2¼ in. deep. With removable tool post, ⅛-in. chuck assembly, two 10½x⅜-in. belts, can of oil, straight wheel 2x¼x¼ in., 3 mounted wheels.

84 KRP 2237 K—With Case. *Postpaid* from Factory near Milwaukee, Wis.. $65.00

[2] DUMORE UTILITY GRINDER. For heavy-duty production use in machine shops, garages, factories, repair and welding shops. Precision built for accuracy to within .0002 in. A powerful, portable unit that converts Powr-Kraft and Logan 9 to 11-in. lathes to precision external grinding machines. Also fits most other nationally known metal lathes having a 9 to 13-in. swing.

Heavy cast-iron frame for rigid mounting with minimum of vibration. ½-in. diam. spindle rotates at 5000 RPM on precision grease-sealed ball bearings. Takes up to 4-in. diam. wheels. Securely mounted on heavy T-bolt for easy mounting on lathe, vise or bench. Easily portable—weighs only 33 lbs. Complete with ¼-HP split-phase continuous-duty type motor with handy on-off switch mounted in housing. For 110–120 volts 60 cycle AC. Includes belt and wheel guard and one 4x½x½-in. balanced general purpose grinding wheel. *Mailed postpaid* from Factory near Milwaukee, Wis.

84 KRP 2240 KO—Only $8.50 Down on Terms.....Cash $82.50

[3] PALMGREN MILLING ATTACHMENT. Converts Powr-Kraft and Logan 10 and 11-inch lathes for milling, slotting, grinding, grooving, etc. Accurate graduations for rotary angle adjustments, graduated vertical feed screw. Jaws 2 7/16 in. wide, 1½ inch deep, open to 2½ inches.

84 KR 2245 K—Ship. wt. 13 lbs. *$2.50 Down on Terms.....Cash $24.95

[4] GLOBE BORING BAR SET. Holder has ⅜ to ¾-in. diam. capacity. ¼-in. calibrations. Tool bit holes broached 90° one end, 45° on other. Includes: holder, ⅜ and ½-in. boring bars, tool bits, 2 wrenches.

84 KRP 2238 K—*Mailed postpaid* from Los Angeles Factory.....$17.65

EXTRA GLOBE BORING BARS. With bit.
84 KRP 2239 K—*Postpaid. State size.*

Bar Size	Bit size	Ship. wt.	Each
⅜ x 7 in.	⅛ in. sq.	4 oz.	$3.85
½ x 8 in.	3/16 in. sq.	8 oz.	4.15
9/16 x 9 in.	3/16 in. sq.	12 oz.	4.25
⅝ x 10 in.	3/16 in. sq.	1 lb.	4.35
¾ x 11 in.	¼ in. sq.	1½ lbs.	4.95

TOOL BITS. Fit Globe Boring Bars.
84 KRP 2249 K—*Postpaid. State size.*

Size, in.	6 for	Size, in.	6 for
3/16 x 13/16	$1.50	¼ x 1¼	$2.10
3/16 x 1¼	1.80	¼ x 2½	3.00
3/16 x 2½	2.40	.....	.....

Boring bars and bits mailed promptly from Los Angeles Factory.

[5] TAPER ATTACHMENTS. Tapers to 4 in. per ft. either direction. Detachable for straight turning. Micro-screw adjustment. Ship. wts.:* 16, 18, 20 lbs.

84 KR 2230 K—Fits 9-in. Logan Lathe.....$51.50
84 KR 2206 K–For 10-in. Pwr-Kraft, Logan Lathes. 54.95
84 KR 2190 KB—Fits 11-in. Logan Lathes..... 58.95

RESTS, COLLET CHUCKS, CARRIAGE STOPS, DOGS 99c TO 38.95

[6] CENTER RESTS. Clamps to inner bed ways. Top hinged for inserting or removing shafts. Cast-iron frame with adjustable 3-in. capacity jaws.

84 KR 2210 K—Fits 9-in. Logan Lathe. Ship. wt. 9 lbs.*.....$9.35
84 KR 2165 T—Fits 10-in. Powr-Kraft and Logan Lathes. Wt. 10 lbs.... 10.25
84 KR 2198 K—Fits 11-in. Logan Lathes. Ship. wt. 10 lbs.*..... 12.50

[7] FOLLOWER RESTS. Supports thin work. Mounts on back of carriage; follows cutting tool. Cast-iron frame. Adjustable 3-in. capacity jaws.

84 KR 2211 K—Fits 9-in. Logan Lathe. Ship. wt. 4 lbs.*.....$5.35
84 KR 2164 T—Fits 10, 11-in. Powr-Kraft and Logan Lathes. Wt. 4 lbs.. 6.75

[8] DRAW-IN-COLLET CHUCKS. Hollow draw-in bar extends through headstock. Incl.: tapered closing sleeve, spindle nose cap and wrench. Use with collets (9) below. 9 and 10-in. models cap. 1/16 to ½ in.; 11 in., 1/16 to 1 in.

84 KR 2214 K—Fits Logan 9-in. Lathe. Ship. wt. 4 lbs. 8 oz.*.....$25.95
84 KR 2160 K—Fits 10-in. Powr-Kraft and Logan Lathes. Ship. wt. 5 lbs. 26.50
84 KR 2192 K—Fits 11-in. Logan Lathes. Ship. wt. 7 lbs.*..... 38.95

[9] DRAW-IN COLLETS. For 9 and 10-in. lathes. Use with Collet Chucks 84 KR 2114K and 84 KR 2160K (8) above. Round. Sizes 1/16, 3/32, ⅛, 5/32, 3/16, 7/32, ¼, 9/32, 5/16, 11/32, ⅜, 13/32, 7/16, 15/32 and ½ in.

84 KR 2162 K—*State size wanted.* Ship. wt. 6 oz.*.....Each $4.15

DRAW-IN-COLLETS. For Logan 11-in. lathes. Use with Collet Chuck 84 KR 2192K listed (8) above. Sizes 1/16 to 1 in. by 32nds of an inch. Round.

84 KR 2194 K—*State size wanted.* Ship. wt. 12 oz.*.....Each $5.50

[10] CARRIAGE STOP. Gives positive position stop for lathe carriage. Clamps over front "V" way. Adjustment screw with lock nut.

84 KR 2197 K—For right or left. Ship. wt. 2 lbs.*.....$5.55

[11] DOUBLE CARRIAGE STOP. Adjustable screw at end of each finger sets carriage for 2 desired positions. Clamps to bed.

84 KR 2196 K—Use on either side of carriage. Ship. wt. 3 lbs.*.....$8.95

[12] MICROMETER CARRIAGE STOP. Accurately locates carriage position on lathe bed. Micrometer graduated in .001 in.

84 KR 2195 K—Ship. wt. 3 lbs.*.....$10.95

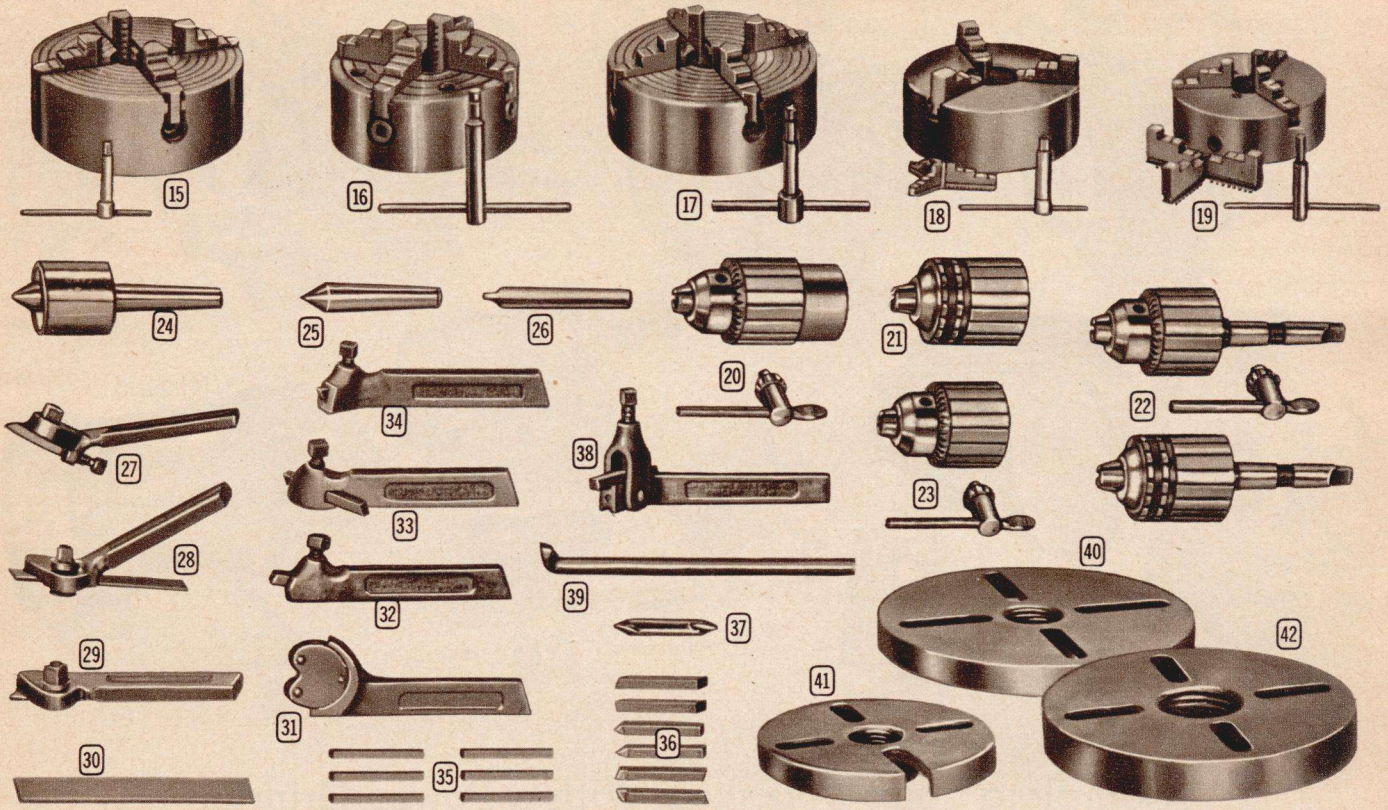
[13] CLAMP-TYPE LATHE DOG. For square, hex, rectangular, round work. Mounts without removing work. Drop-forged steel.

84 KR 2182 T—1¾ in. Ship. wt. 1 lb. 4 oz.....$3.69

[14] STANDARD LATHE DOGS. Highest quality heavy drop-forged bar steel; square head set screw. *State size wanted.* Ship. wt. each 10 oz.

84 KR 2183 T—½-inch.....99c ¾-inch.....$1.10
1-inch.....$1.38 1½-inch..... 1.65

*Starred items with Cat. Nos. ending in "K", "KB" or "KO" shipped from Chicago Factory. Items with Cat. Nos. ending in "T" shipped from Chicago; order and pay postage from your usual Mail Order House.



Attachments Make Your Metal Lathe Even More Useful

3 AND 4-JAW CHUCKS 21.50 TO 72.50

15 16 LOGAN 4-JAW INDEPENDENT CHUCKS. 6-in. diam. Reversible jaws have independent screw adjustments, hold work of any shape from inside or outside. 1-pc. semi-steel body ground outer edge and face. Heat-treated alloy steel jaws.

(15) FOR LATHES WITH 2¼-INCH 8-THREAD SPINDLE. With wrench.
84 KR 2228 KB—Ship. wt. 20 lbs. $5.00 Down.....Cash $47.95

(16) FOR LATHES WITH 1½-INCH 8-THREAD SPINDLE. With wrench.
84 KR 2143—Ship. wt. 13 lbs. $2.50 Down on Terms. Cash $24.95

17 UNION 4-JAW INDEPENDENT CHUCK. 6-in. diam. Reversible jaws. Independent screw adjustments, takes work of any shape from inside or outside. Ground outer edge and face. Fits lathes with 1½-in. 8-thread spindle. With wrench.
84 KR 2247 K—Ship. wt. 10 lbs. $2.50 Down.....Cash $21.50

18 LOGAN 3-JAW UNIVERSAL CHUCKS. 5-in. diam. Self-centering jaws are adjusted by turning one screw. Improved design, rugged construction gives less overhang, less vibration, provides greater cut-off capacity. Inside and outside jaws, wrench.

MEDIUM-DUTY MODEL. Ship. wt. 9 lbs. $4 Down.
84 KR 2142—Fits 1½-in. 8-thread spindle.....Cash $35.50

HEAVY-DUTY MODELS. Ship. wts. 11 lbs., 20 lbs.
84 KR 2207—Fits 1½-in. 8-thread spindle. $4.50 Dn.; Cash $42.50
84 KR 2227 KB—Fits 2¼-in. 8-thread spindle. $7.50 Dn.; Cash 72.50

19 UNION 3-JAW UNIVERSAL CHUCK. 5-in. diameter. One screw adjusts self centering jaws. With inside and outside jaws and wrench. Fits 1½-in. 8-thread spindle.
84 KR 2246 K—Ship. wt. 7 lbs. 8 oz. $3.50 Down.....Cash $34.50

NATIONALLY KNOWN JACOBS CHUCKS 8.56 TO 24.18

20 JACOBS HEADSTOCK CHUCKS. Thread directly to any 1½-in. 8-thread spindle. Hollow body allows chucking of long pieces through spindle. Chuck key. *Postpaid.*
84 KRP 2148 K—⅛ to ⅝-in. capacity. $17.65
84 KRP 2149 K—3/16 to ¾-in. capacity 21.13

21 JACOBS CENTER REST CHUCK. Provides accurate support for centerless work such as armature shafts. Has 3 adjustable bronze jaws in which shaft rotates. Requires No. 2 Morse Taper arbor (84KRP2153T listed (26) at right) to mount in lathe tailstock. ¼-in. to ¾-in. capacity.
84 KRP 2150 K—*Mailed Postpaid*.....$12.50

22 JACOBS COMMUTATOR KIT. Designed especially to hold armature shafts rigidly and accurately during reconditioning. Includes ¼ to ¾-inch capacity armature driving and center rest chucks which mount in headstock and tailstock with No. 2 Morse Taper arbors (included). In sturdy metal box with chuck key and instructions for operation. *Mailed. Postpaid.*
84 KRP 2151T—$2.50 Down....Cash $24.18

23 JACOBS GEARED DRILL CHUCKS. Strong, precision chucks that fit headstock or tailstock of Powr-Kraft and Logan metal lathes when used with arbors (26) listed below. With chuck key. *Mailed Postpaid.*
84 KRP 2146 T—Capacity 0 to ½ in...$8.56
84 KRP 2147 T—Capacity 3/16 to ¾ in. 12.84

24 60° ANTI-FRICTION CENTER. For high-speed operation. Live center turns with work, permitting faster, heavier cuts. Mounted on grease-sealed New Departure ball, Timken roller bearings for smoother operation. No. 2 Morse Taper shank.
84 KRP 2146 T—Ship. wt. 2 lbs.....$18.95

25 60° CENTER. Hardened and tempered precision ground tool steel. No. 2 Morse Taper shank.
84 KR 2201K—Ship. wt. 8 oz.....$2.15

26 JACOBS CHUCK ARBORS. Adapt Jacobs chucks to fit No. 2 Morse Taper in headstock or tailstock. *Postpaid.*
84 KRP 2152 T—Fits 84KRP2146T.....$1.10
84 KRP 2153 T—Fits 84KRP2147T, 2150K 1.10

SHIPPING INFORMATION: Items with Catalog Numbers ending in "K" and "KB" shipped from Chicago Factory; pay postage from there. Items with Catalog Numbers ending in "T" stocked in Chicago only. Order and pay postage from nearest Mail Order House.

THREADING, CUT-OFF AND KNURLING TOOLS

27 THREADING TOOL HOLDER. Cuts 60° "V" threads. Forged 60° cutter; with wrench.
84 KR 2171T—⅜x¾-in. shank. Ship. wt. 8 oz. $4.55

28 29 CUT-OFF TOOL HOLDERS. Drop-forged steel. ⅜x¾-in. shank. Ship. wt. 9 oz. each.
(28) 84 KR 2173 T—Right hand.....$2.70
(29) 84 KR 2172 T—Straight..... 2.70

30 EXTRA BLADE. Fits holders (28) and (29).
84 KR 2174 T—Ship. wt. 1 oz.....$1.15

31 KNURLING TOOL HOLDER, med. diamond knurl.
84 KR 2175 T—Ship. wt. 10 oz.....$5.45

DIAMOND FORMED KNURLS. Ship. wt. each pair 2 oz.
84 KR 2176 T—Fine Knurl.....Pair $1.75
84 KR 2177 T—Medium Knurl.....Pair 1.75
84 KR 2178 T—Coarse Knurl.....Pair 1.75

CUTTERS AND CUTTER HOLDERS

32 TO 34 TOUGH DROP-FORGED CUTTER HOLDERS. For ¼-in. sq. cutter bits. ⅜x¾-in. shank. Average ship. wt. 9 oz.
(32) 84 KR 2170 T—Straight.....$2.20
(33) 84 KR 2168 T—Right Hand..... 2.20
(34) 84 KR 2169 T—Left Hand..... 2.20

35 BLANK CUTTER BITS. ¼x¼x2 in.
84 KR 2203 T—Ship. wt. 1 lb. Pkg. of 6 for $1.27

36 FORMED CUTTER BIT SETS. Includes round nose, right-left turning, right-left facing, threading bits. ¼x¼ in. Ship. wt. 1 lb.
84 KR 2204 T—High-Speed Steel.....Set $1.87
84 KR 2205 T—Carbide Tipped.....Set 8.50

37 60° CENTER DRILL, COUNTERSINK. *State size.*
84 KR 2181T—Wt. 3 oz. 1/16 in. 49c; 3/32 in. 65c

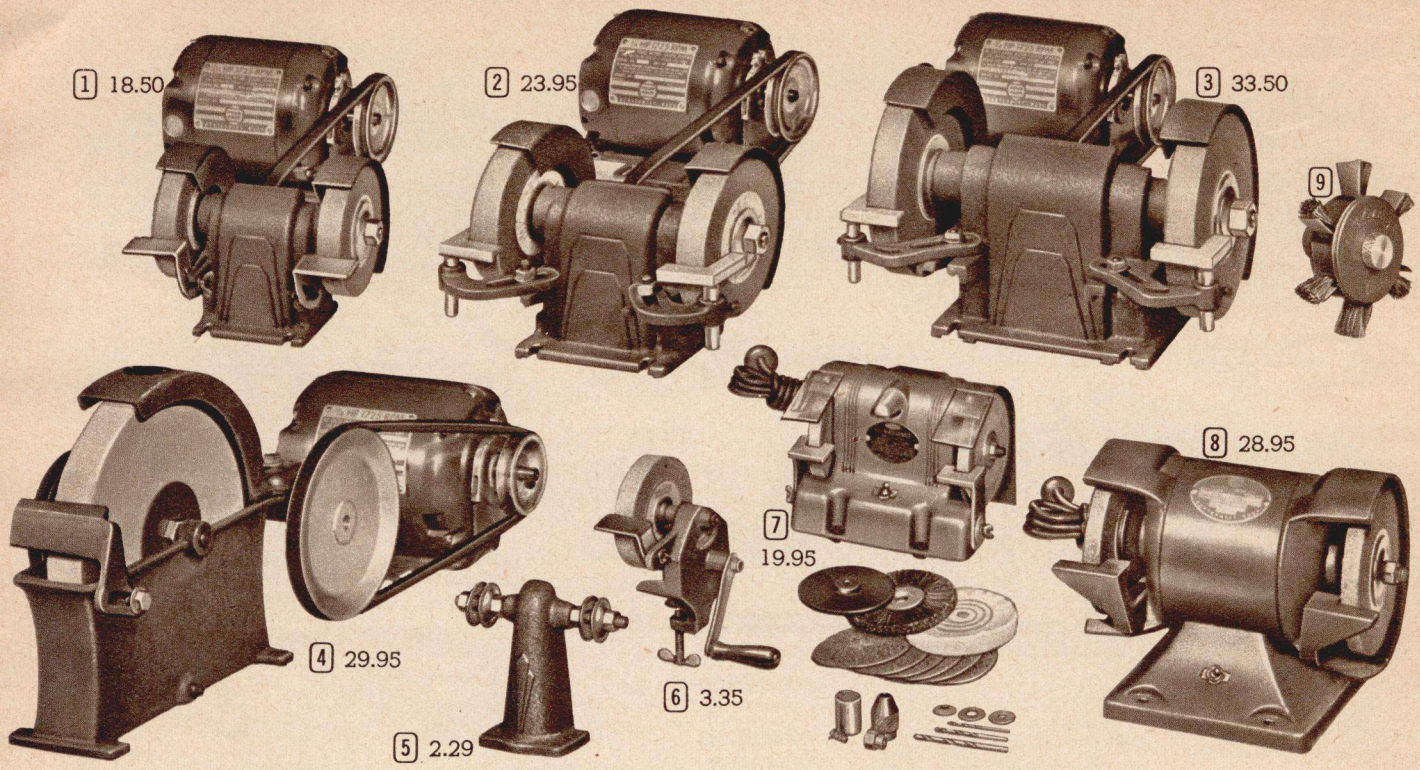
BORING TOOLS AND FACE PLATES

38 BORING TOOL HOLDER. Reversible yoke for right or left-hand work. ¼-in. bar, bit, wrench.
84 KR 2179 T—Ship. wt. 1 lb. 4 oz.....$5.45

39 BORING BARS. Fit holder (38). *State size.*
84 KR 2180 T—⅛x4 in., 66c....3/16x4½ in., 88c ¼x5 in....$1.10; 5/16x6 in....$1.32; ⅜x7 in....$1.76

40 41 FACE PLATES. Fit 1½-in. 8-thread spindle. Precision machined and balanced.
(40) 8-INCH DIAMETER FACE PLATE.
84 KR 2155 T—Ship. wt. 6 lbs.....$6.19
(41) 6-INCH DIAMETER FACE PLATE.
84 KR 2154 T—Ship. wt. 3 lbs. 6 oz.....$4.19

42 8-IN. DIAM. FACE PLATE. Precision machined. Ship. wt. 6 lbs.
84 KR 2199 K—Fits 2¼-in. 8-thread spindle...$7.75



Complete Your Workshop With a Power Grinder

BELT DRIVEN GRINDERS 4.49 TO 33.50

1 TO 3 HEAVY DUTY GRINDERS, WARDS MASTER (BEST) QUALITY. All models have double shielded ball bearings; "safety" steel wheel guards. 6 and 8 in. have extra heavy adjustable tool rests. Drive from below or behind. Heavy gray iron base attaches to bench with bolts or lag screws. Complete outfits include ¼-HP, 1725 RPM motor (110-120 volt, 60 cycle AC).

(1) 5-INCH BENCH GRINDERS. For home workshop use. Shaft is 5/8x99/16 in., turned down for ½-in. arbor wheels. Base 4x5 in. 2-in. diameter pulley takes "V" or round belt.

COMPLETE OUTFIT with motor, motor pulley, "V" belt and two 5x1-in. vitrified grinding wheels (one 100 grit, one 60 grit).
84 KR 5152 YB—Ship. wt. 34 lbs. $18.50

5-IN. BENCH GRINDERS LESS MOTOR, PULLEY, BELT.
84 KR 5151 MB—Ship. wt. 22 lbs. 6.95

5-IN. GRINDER HEAD ONLY WITH GUARDS; WITHOUT WHEELS.
84 KR 5150 M—Ship. wt. 9 lbs. 4.49

(2) 6-INCH BENCH GRINDERS. For garage and production work. Shaft is ¾x11¼ in., turned down for 5/8-in. arbor wheels. Base 4¾x6¾ in. 2-in. diameter pulley takes "V" or round belt.

COMPLETE OUTFIT with motor, motor pulley, "V" belt and two 6x1¼-in. grinding wheels (one 60 grit, one 36 grit). Ship. wt. 43 lbs.
84 KR 5155 YB—Only $2.50 Down ..... Cash $23.95

6-IN. BENCH GRINDER LESS MOTOR, PULLEY, BELT.
84 KR 5154 MB—Ship. wt. 22 lbs. 12.50

6-IN. GRINDER HEAD ONLY WITH GUARDS; WITHOUT WHEELS.
84 KR 5153 M—Ship. wt. 14 lbs. 9.50

(3) 8-INCH BENCH GRINDERS. For heavy work in garages, etc. Shaft 1x16¾ in. Turned down for ¾-in. arbor wheels. Base 6x9½ in. Combination "V" or flat belt pulley 4 in. wide, 2⅝ in. diam.

COMPLETE OUTFIT with motor, motor pulley, "V" belt and two 8x1¼-in. wheels (one 60 grit, one 36 grit). Ship. wt. 65 lbs.
84 KR 5158 YO—Only $3.50 Down ..... Cash $33.50

8-IN. BENCH GRINDERS LESS MOTOR PULLEY, BELT.
84 KR 5157 MO—Only $2.50 Down. Ship. wt. 44 lbs. ... Cash 21.95

8-IN. GRINDER HEAD ONLY WITH GUARDS; WITHOUT WHEELS.
84 KR 5156 MB—Ship. wt. 32 lbs. 17.75

WET GRINDER 29.95

4 BELT DRIVEN GRINDER. Ohio sandstone wheel, 10x1½ in., will withstand heavy industrial use. Operates at 125 RPM in water to resist drawing temper from tools. Fine, even surface gives keen, sharp edge to tools. Has sturdy cast-iron frame. Comes complete with ¼-HP, 1725 RPM motor (110-120 volts, 60 cycle AC). Also includes motor pulley and "V" belt shown. Ship. wt. 52 lbs. *Mail.*
84KR5286YB-$3 Down.Cash $29.95

GRINDSTONE less motor, pulley, belt. Ship. wt. 31 lbs.
84 KR 5285 MB—*Mailable*. . . $17.95

5 POLISHING HEAD. For polishing, light grinding and brushing. Takes accessories from ½ to ¾ in. thick. Height to spindle center 5 in. Shaft ½-in. diam., 24 thread, 7⅜ in. long. Use with 1725 RPM motor, 3-in. motor pulley (neither included). Fitted with 1½-in. diam. "V" pulley. *Mailable.*
84 KR 2768—Ship. wt. 4 lbs..$2.29

6 HAND GRINDER. Has heavy iron, dustproof gear case with gray finish. Hardened alloy steel gears, accurately cut; high speed ratio of gears for easier turning. Adjustable tool rest gives greater versatility. Extra long, self-lubricating bronze bearings for longer wear. Steel handle has wood grip. Furnished with 80-grit, 5x1-in. vitrified aluminum oxide wheel.
84 KR 5250—Wt. 5 lbs. 8 oz. . $3.35

ELECTRIC GRINDERS 16.50 TO 28.95

7 16-PIECE GRINDER KIT. Versatile kit at low cost, combines hobbyists' Powr-Kraft 1/12-HP Grinder with 15 accessories—you can grind, drill, sand, polish, etc. With two 4½x½-in. wheels—1 fine, 1 medium grit—on ⅜-in. diam. shaft. Adjustable tool rests for greater versatility. Equipped with built-in work light, handy on-off switch. Plastic spark shields. For 110-120 volt, 60 cycle AC. UL approved. Self-lubricating bronze bearings. Accessories include: arbor assembly, 4½-in. polishing and buffing cloth wheel, polishing rouge, molded rubber backing pad, 6 discs of assorted sand paper, ¼-in. capacity chuck, 3 chrome alloy steel twist drills (⅛, 3/16, ¼-in.), 4½-in. diam. wire brush. Ship. wt. 10 lbs.
84 KR 5106 M—*Mailable*. Only $2 Down. . . . . Cash $19.95

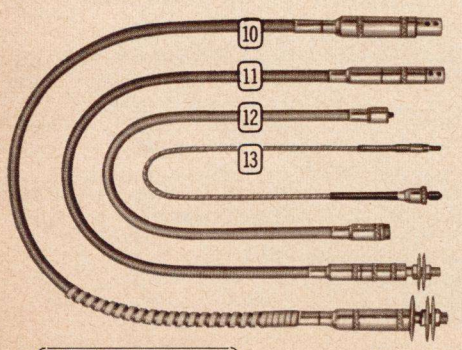
1/12-HP GRINDER ONLY. As described in (7) above.
84 KR 5101 M—Ship. wt. 9 lbs. *Mailable*. $16.50

8 ¼-HP ELECTRIC GRINDER. Designed and constructed to give years of service under use in production shop. Excellent for home workshop. First quality construction throughout. Runs smoothly and efficiently on grease-sealed ball bearings. Powerful ¼-HP split-phase motor operates on 110-120 volt, 60-cycle AC. UL approved. Has on-off switch for convenient control. Comes complete with wire cord and plug. No-load speed 3450 RPM. Has ½-inch diameter shaft. Heavy cast-iron base and guards have gray finish. Adjustable tool rests for greater grinding control—give wider versatility. With two vitrified aluminum oxide grinding wheels—one medium and one fine grit. Wheel size 6x⅝ inch. Ship. wt. 50 lbs. *Mailable.*
84 KR 5100 MO—Only $3 Down. . . . . Cash $28.95

9 SAND-O-FLEX. Contour sander for curved or irregular surfaces. 3-in. head. With garnet cartridges and brushes.
84 KRP 2730—Fits ½, 5/8-in. diam. arbors. *Postpaid*. $5.98

SAND-O-FLEX REFILLS. *State Fine, Medium or Coarse.*
84 KRP 2732—Garnet. *Postpaid*. . . . . Each 43c
84 KRP 2733—Aluminum oxide. *Postpaid*. . . . . Each 43c
84 KRP 2734—SAND-O-FLEX brushes. *Ppd*. . . Pkg. of Six 89c

POWR-KRAFT FLEXIBLE SHAFTS GIVE "REACH" TO YOUR MOTOR 3.75 TO 17.50



10 TO 12 FLEXIBLE SHAFTS AND EXTENSION. One of the most helpful tools in your shop. Has hundreds of uses in home, garage or repair shop. Gets into difficult places and corners where stationary tools cannot reach. Extends power of motor beyond its own permanent or portable mount. Can be used with a wide range of accessories for grinding, drilling, sanding, wire brushing, polishing and cleaning. Attaches to any ½-inch diameter motor or line shaft (use adapter 84 KRP 2992 keyed (19) on Page 7 to fit 5/8-in. diameter shafts), ¼ or ⅓-HP for counter-clockwise operation at 1725 RPM. (See ⅓-HP split-phase motor on Page 26.) Flanges for holding grinding wheels, wire brushes, etc. Has ½-in. diameter, 24-thread spindle. See accessories on opposite page. For chucks (84 KR 2764) to fit spindle, see (U) on Page 28.

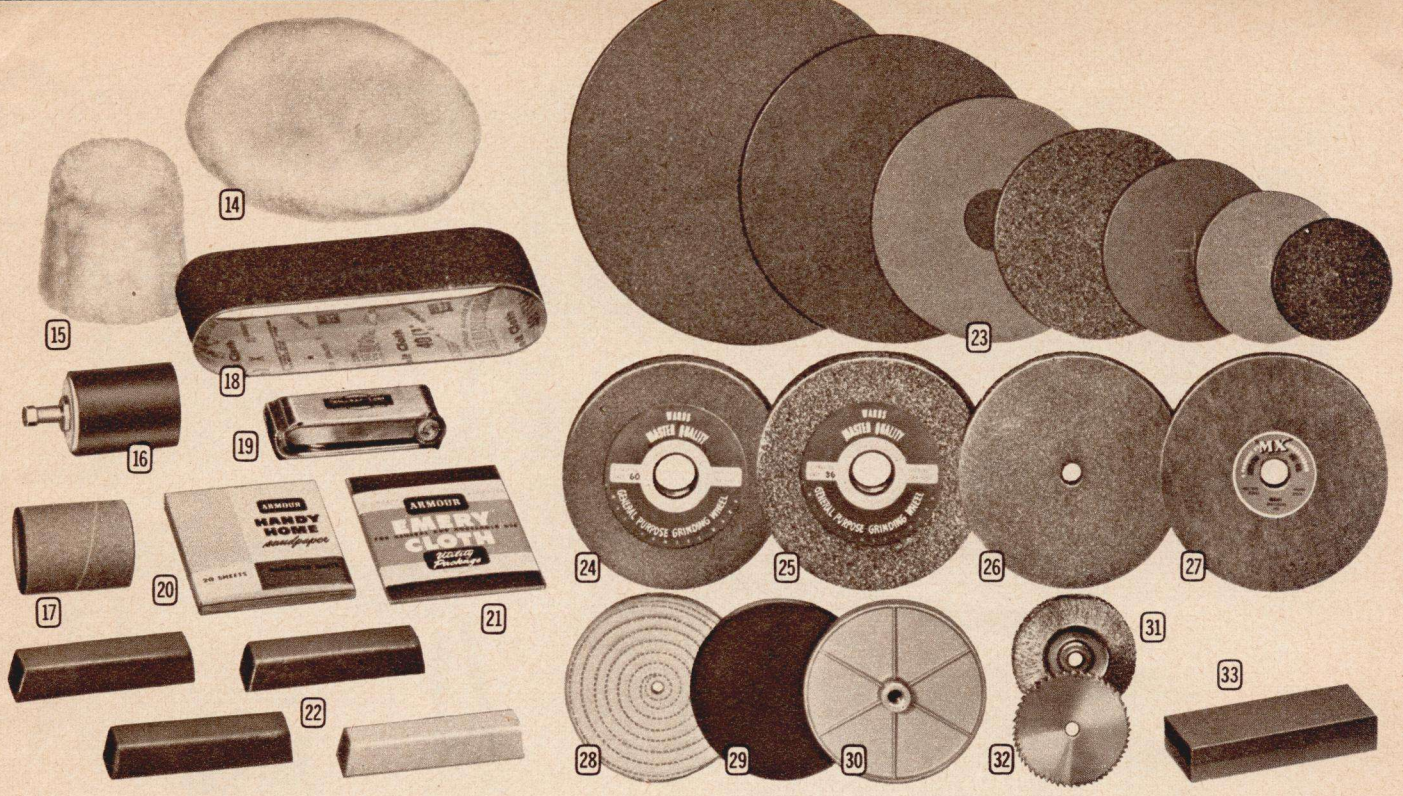
Smooth running ball bearing hand-piece and motor coupling for positive connection. Inner core made of transversely wound layers of high carbon steel wire. Wound with soft dead filler wire making up casing assembly. Choice: medium or light-duty shafts at right.

(10) MEDIUM-DUTY FLEXIBLE SHAFT. 60-inch shaft, ⅜-in. diameter core. With hand guard. For garages, carpenter, paint and other workshops.
84 KR 2657 M—*Mailable*. Ship. wt. 9 lbs. $17.50

(11) LIGHT-DUTY FLEXIBLE SHAFT. 50-in. shaft, 5/16-in. diam core. Torque release clutch prevents overloads from damaging core. For light grinding, etc.
84 KR 2695 L—*Mailable*. Ship. wt. 6 lbs. $9.50

(12) FLEXIBLE SHAFT EXTENSION. Use with light-duty shaft (11) only. Length 36 in., 5/16-in. diam. core.
84 KR 2696 L—*Mailable*. Ship. wt. 3 lbs. 8 oz. . . $3.75

13 FLEXIBLE SHAFT FOR 3-JAW CHUCKS. Fits ¼-in. or larger chuck operating up to 6000 RPM. 4-wire galvanized outer casing. 5/32-in. diam. wire core. Oilite bronze bearings. Replaceable collets take ⅛ and 3/32-in. diam. shank accessories. 36 in. long.
84 KR 2654—*Mailable*. Ship. wt. 14 oz. $3.98



Complete Selection of Sanding, Polishing and Grinding Needs

PADS, BELTS, SHEETS FOR POLISHING, SANDING, AND BUFFING

14 SHOPSMITH LAMBSWOOL POLISHING PAD. Deep wool pile. 6-in. diam.
84 KRP 3128 X—Fits on 6-in. face plate or disc. *Postpaid*.....$1.50

15 SHOPSMITH LAMBSWOOL POLISHING BONNET. Fits sanding drum (16).
84 KRP 3129 X—*Postpaid*.....$1.50

16 SANDING DRUM. Fits flexible shaft, polishing head, etc. Threaded to fit 5/16-in. 24-thread and ½-in. 24-thread with furnished adapter.
84 KR 2665 K—2 5/16-in. diameter, 3 in. wide. Ship. wt. 2 lbs.*.....$2.19

17 SHOPSMITH SANDING SLEEVES. Fit sanding drum (16). 2 5/16-in. diameter, 3 in. wide. *State Fine, Medium, Coarse or Assorted grit.*
84 KRP 3133 X—*Mailed Postpaid*.....Pkg. of 6 $1.25

SMALL SANDING SLEEVES. Choice of Fine, Medium or Coarse grit. Choice of three sizes: 1 in. wide, 1-in. diam.; 1½ in. wide, 1½-in. diam.; 1½ in. wide, 2-in. diam. *State grit and width wanted.* Fit 84KR9330 (36), Page 57.
84 KR 9351X—Ship. wt. set 5 oz.....Set of 5 sleeves 35c

18 ALUMINUM OXIDE SANDING BELTS. For sanding wood or metal. Endless construction, for use on belt type power sanders. Cloth backed. *State Catalog Number and Fine (F), Medium (M) or Coarse (C) grit.*

Catalog No.	Size, in.	Grit	Fits Sanders	Ship. wt.	Each
84 KR 9354	2x17.38	F, M	84 KR 9294	2 oz.	25c
84 KR 9350	2x17½	F, M, C	84 KR 8550, 9326	2 oz.	29c
84 KR 8531	3x24	F, M, C	84 KR 8511	3 oz.	35c
84 KR 2716	3x29½	F, M, C	84 KR 2702, 2703	4 oz.	53c
84 KR 2729	4x36	F, M, C	84 KR 2719 M	4 oz.	55c
84 KR 2727	6x48	F, M, C	84 KR 2726 R, 2711F	12 oz.	$1.00

19 HAND SANDER. Ideal for small sanding jobs in home or workshop. Gives even pressure and contact. Sturdy zinc plated steel frame. Has 1 3/8x20-in. med. grit abrasive cloth strip over 3/8-in. sponge rubber cushion.
84 KR 4109—With 1 roll of abrasive cloth. Ship. wt. 6 oz.....69c
84 KR 4110—Refill rolls for (19). Medium grit. Ship. wt. 2 oz.....3 for 45c

20 SANDPAPER SHEETS. In handy packages of 20. Assorted grits.
84 KR 4113—4½x5½-in. sheets. Ship. wt. 2 lbs. 4 oz.....3 pkgs. 39c
84 KR 4115—9x10-in. sheets. *State:* Fine, Medium or Coarse grit.

Grit	Sheets	Ship. wt.	Price	Sheets	Ship. wt.	Price
Fine	25	1 lb. 4 oz.	49c	100	5 lbs.	$1.89
Medium	25	1 lb. 12 oz.	59c	100	7 lbs.	1.98
Coarse	25	2 lbs. 4 oz.	69c	100	9 lbs.	2.49

ALUMINUM OXIDE SANDING SHEETS. Fit most portable sanders. Use on wood or metal. Designed and sized especially for power sanders. Longer lasting and tougher than ordinary sandpaper. *State grit wanted.*

Catalog No.	Size, in.	Grits	Fits Sanders	Ship. wt.	Pkg. of 12
84 KR 8513	2½x7 1/16	Assorted	84 KR 8512	8 oz.	20c
84 KR 8533	3 x9	Assorted	84 KR 8516	8 oz.	39c
84 KR 8518	3⅛x7½	Assorted	84 KR 8517	8 oz.	29c
84 KR 8509	3⅝x9	Assorted	84 KR 8508, 8541	8 oz.	49c

21 EMERY CLOTH. Handy packages of 6 assorted grit sheets.
84 KR 4119—4½x5½-in. sheets. Ship. wt. pkg. 4 oz.....3 pkgs. 59c
84 KR 4121—9x11-in. sheets. *State:* 00, 0 or 1 grit. Ship. wt. 4 oz.....6 for 79c

22 BUFFING COMPOUND. In one lb. bars. *State Cat. No.* Ship. wt. 1 lb. 4 oz.
84 KR 2786—Tripoli.....49c 84 KR 2787—Red Rouge.....59c
84 KR 2788—White Rouge.....49c 84 KR 2789—Emery.....45c
84 KR 2785—ASSORTMENT. One ea. of above, but in 5 oz. bars. Wt. 2 lbs..65c

**Any item with Catalog Number ending in "K" is shipped promptly from Chicago Factory.*

SANDING DISCS—GRINDING WHEELS AND ABRASIVES FOR BENCH GRINDERS

23 SANDING DISCS. Use aluminum oxide for wood or metal. Use garnet for wood only. *State Grit as listed below.* Fine—F, Medium—M, Coarse—C, Extra Coarse—XC.

Cat. No.	Diam.	Hole	Grit	Abrasive	Ship. wt.	Price
84 KR 9345	4 in.	¼ in.	F, M, C, XC	Aluminum Oxide	10 oz.	10 for 39c
84 KR 9346	5 in.	¼ in.	F, M, C, XC	Aluminum Oxide	8 oz.	10 for 69c
84 KR 9347	6 in.	¼ in.	F, M, C, XC	Aluminum Oxide	6 oz.	5 for 39c
84 KR 2672	6 in.	None	Assorted	Garnet	6 oz.	6 for 39c
84 KR 8530	7 in.	⅞ in.	F, M, C, XC	Aluminum Oxide	8 oz.	5 for 59c
84 KR 2286	8 in.	2 in.	Assorted	Garnet	6-oz.	6 for 55c
84 KR 2070K*	10 in.	None	F, M, C	Garnet	6 oz.	6 for $1.10
84 KRP 2978	12 in.	None	F, M, C, Assorted	Garnet	Postpaid	6 for 1.95

24 **25** GRINDING WHEELS. Perfectly balanced. Fully finished sides and faces; lead centers with steel bushings. Highest quality aluminum oxide abrasive. Vitrified in scientifically controlled kilns. Wheels with center holes over 1½ in. mailed promptly from Chicago Factory. *State diam., thickness and hole size.*

Diameter, Thick. Inches	Ship. wt. lbs.	25 Med. Crse. 36-Grit 84 KR 5204 L	24 Med. Fine 60-Grit 84 KR 5201 L	Fine 100-Grit 84 KR 5200 L	Extra Fine 200-Grit 84 KR 5203L
4 x ½	1	.....	60c	60c	70c
4 x ¾	2	.....	70c	70c	80c
5 x ¾	2	.....	$1.00	$1.00	$1.10
5 x 1	3	.....	1.15	1.15	1.25
6 x ¾	3	$1.20	1.20	1.20	1.30
6 x 1	3	1.40	1.40	1.40	1.50
6 x 1¼	4	1.60	1.60	1.60	1.70
7 x ¾	4	1.45	1.45	1.45	1.55
7 x 1	5	1.65	1.65	1.65	1.75
8 x 1	6	2.00	2.00	2.00	.....
8 x 1¼	8	2.35	2.35	2.35	.....

HELPFUL INFORMATION FOR ADDED SAFETY.

Wheel Diameter, Inches	4	5	6	7	8
Diameter Flange, Inches	1¾	1¾	2	2½	3
Recommended RPM	5729	4584	3820	3274	2865
Speed Not to exceed RPM	6301	5042	4202	3601	3151

26 RUBBER BONDED CUT-OFF WHEEL. Aluminum Oxide. *State size.* Ship. wts. 2, 3 lbs.
84 KR 5213 L—6x3/32 in. (½-in. hole)....Each 69c; 8x3/32 in. (⅝-in. hole)....Each 89c

27 "MX" CUT-OFF WHEEL. For fast cutting of metals, Bakelite, Masonite, etc. Use for finish grinding on side or edge. Cotton fabric and abrasive construction for greater safety—will not shatter. 1-in. hole, bushing furnished for smaller holes. Recommended speed 3600 RPM. *State wheel diameter and hole size. Postpaid.*
84 KRP 5241—Fine (80) grit. 6x3/32 in.....$1.83; 7x3/32 in.....$2.40; 8x3/32 in....$3.06
84 KRP 5242—Coarse (24) grit. 6x3/32 in.... 1.83; 7x3/32 in..... 2.40; 8x3/32 in..... 3.06

28 CLOTH BUFFING WHEELS. ⅜-in. face. ½-in. arbor. *State diam.*
84 KR 2784—Ship. wts. 4, 7, 12 oz.
4-in. diam....Each 39c; 3 for $1.10
6-in. diam....Each 59c; 3 for 1.70
8-in. diam.....Each 89c; 3 for 2.57

29 RUBBER CUSHIONING PAD. Fits disc (30) below. Ship. wt. 4 oz.
84 KR 2680—6-in. diam.....43c

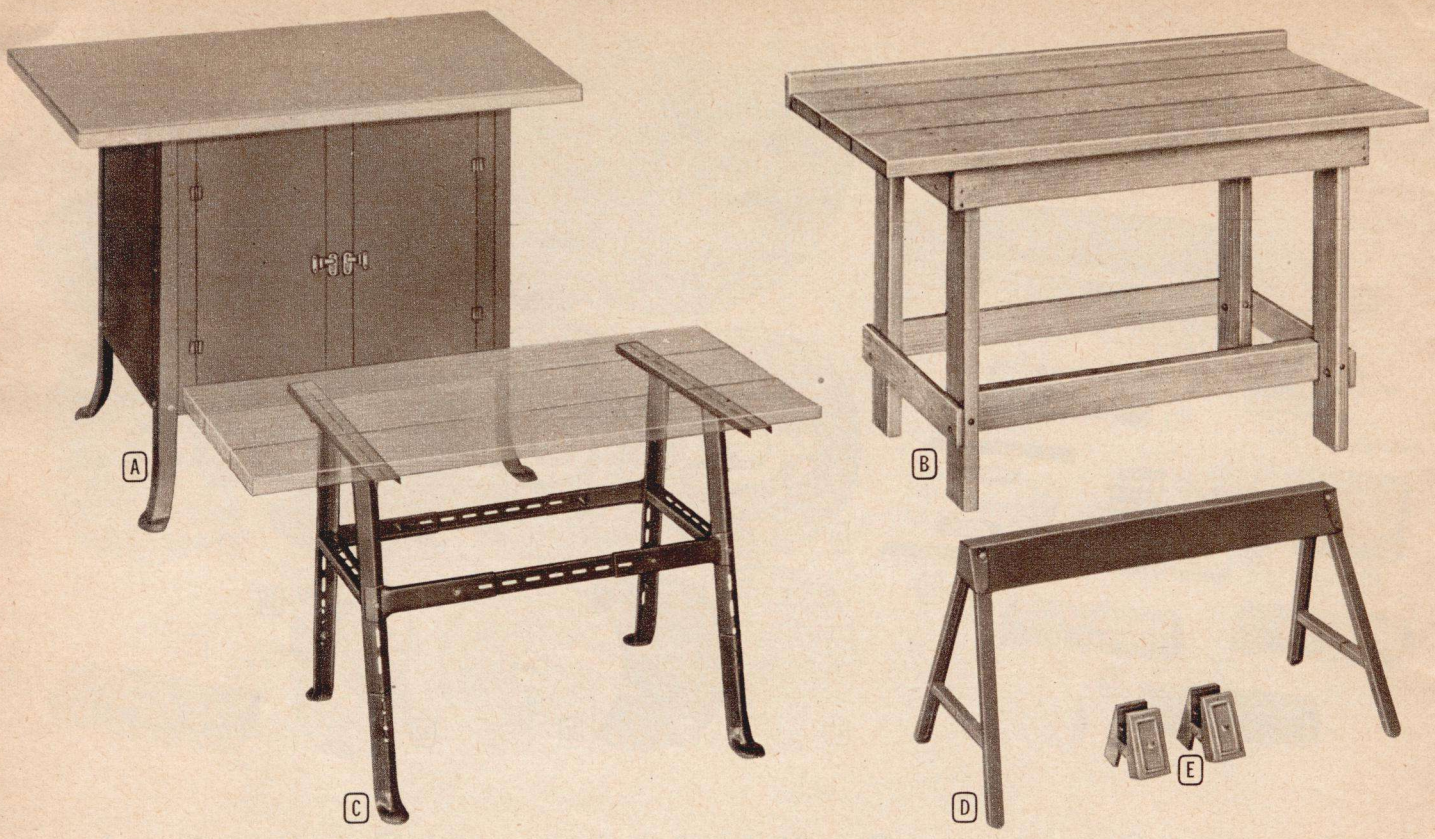
30 METAL SANDING DISC. Fits ½-in., 24-thread spindle.
84KR2668—6-in. diam. Wt. 1 lb.$1.49

31 WIRE SCRATCH BRUSHES. *State Catalog Number and diameter wanted.*

Diam., In.	Arbor Hole	Ship. wt.	Fine Wire 84 KR 2778	Coarse Wire 84 KR 2779
4	½ in.	8 oz.	65c	52c
6	½ in.	12 oz.	95c	75c
8	⅝ in.	1¼ lb.	.....	95c

32 LIGHT-DUTY SAW BLADE. ½-in. arbor hole.
84 KR 2675—4-in. diam. Ship. wt. 2 oz....39c

33 BENCH STONE. Vitrified silicon carbide. Combination coarse and fine grit.
84 KR 4128-6x2x1 in.
Ship. wt. 12 oz.$1.09



Sturdy Work Benches . . . A Must for Every Shop

WORK BENCHES AND WORK BENCH STANDS 9.95 TO 32.95

METAL SAW HORSES 4.50 EA.

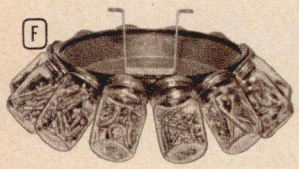
Ⓐ OUR FINEST CABINET-WORK BENCH. Strong, sturdy construction will stand up under hardest use. Locking doors on storage cabinet, keep tools locked up when not in use, safeguards tools, keeps them out of reach of youngsters. 1½-in. thick top is made up of about 1-in. wood core faced on top and bottom with about ¼-in. thick Resinwood. Resists marring, acids, oils, etc.; cushions noise. Top is 24x48 in.—gives you plenty of working room. About 34 in. high from floor to top of bench—just right for most bench work. Storage cabinet measures about 18x32x22 in. high. Plywood bottom in cabinet; sides, back and locking doors are heavy gauge steel. Sturdy auto-type locks. Shipped unassembled. With key. Order vises from opposite page.
84 KR 2965 R—*Not Mailable*. Ship. wt. 110 lbs. . . $32.95

Ⓑ UTILITY WORK BENCH. Strong construction throughout. 22x60-in. top provides plenty of working space. Top is 1⅝-in. thick kiln-dried Douglas Fir, sanded smooth. Screw and bolt construction gives extra strength. Heavy 2x4-in. legs are securely cross braced. 33¼ in. from floor to top. Shipped promptly from Stock, unassembled with instructions.
84 KR 2956 R—*Not Mailable*. Ship. wt. 72 lbs. . . $18.95

Ⓒ STEEL WORK BENCH FRAME. Adjustable in height from 26 to 35 in.; length adjusts 25⅞ to 44⅞-in. Full 26-in. width across top. Legs adjust for leveling on uneven or slanting floor. Make your own top (lumber not included). *Mailable*.
84 KR 2951MO—Ship. wt. 34 lbs. $9.95

Ⓓ ALL-PURPOSE, ALL-STEEL SAW HORSE. Completely assembled, ready to use. Folds compactly for easy handling and storage. Supports up to 450 lbs. About 42 in. long, 23 in. high when unfolded. Ship. wt. 12 lbs. each. More handy in pairs.
84 KR 2974 M—Each $4.50; 2 for $8.50

Ⓔ SAW HORSE BRACKETS. Stamped steel. Use 2x4-in. lumber (not included). Cut lumber and insert. Two pair required to make two saw horses. Ship. wt. 3 lbs. per pair.
84 KR 2970—Pair $1.59; 2 Pair. . . . $2.98



Ⓕ WORKSHOP ROTO DISPENSER. Twelve 4-oz. jars—mounts on wall or shelf. With 2000 assorted bolts, screws, washers, cotter pins, brads, nails, machine and sheet metal screws. Transparent jars let you select things you want at a glance, no need to spend valuable time searching through drawers or boxes. *Mailable*.
84 KR 4328 Y—Complete as shown. Ship. wt. 13 lbs. $3.95
84 KR 4322 L—Dispenser only. Ship. wt. 6 lbs. 1.69

WORK BENCH HINTS: Although work benches are strongly constructed, they need a certain amount of care to insure a long useful life. When drilling or nailing on bench, use a piece of waste stock under work to save top of bench from being cut by drill or nails. Keep the top clean, a whisk broom or small brush and a large trash can will save a lot of later sweeping. If it is possible, rotate the top of bench so it does not wear excessively in one place.

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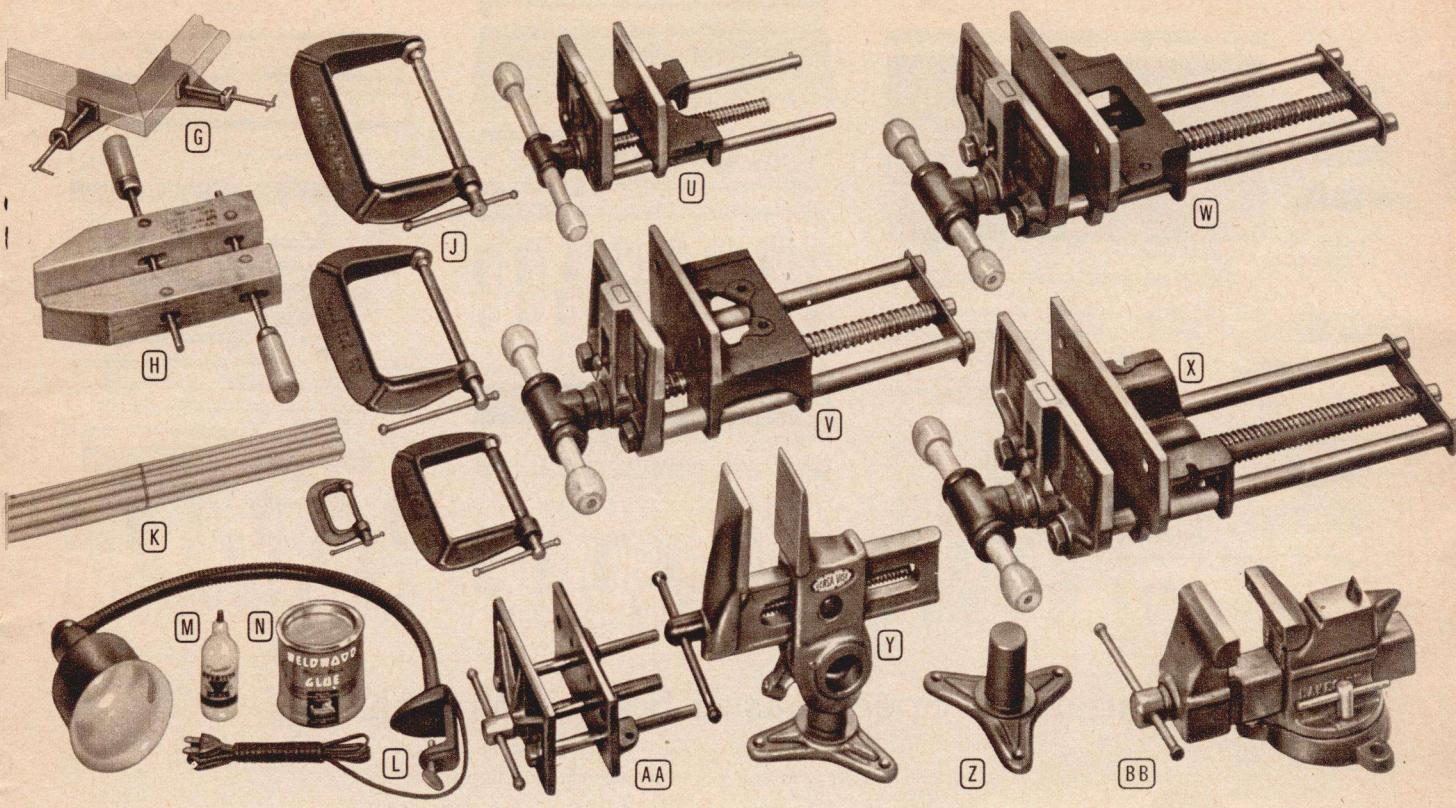


Woodworkers' Clamps, Vises and Accessories

CLAMPS AND WOODWORKING ACCESSORIES 19c TO 4.95

G MITER VISE-CORNER CLAMP COMBINATION. Use when making miter or butt joints. Holds work at 90° angle for gluing, nailing or doweling. For picture frames, screens, etc. Maximum opening 3¼ in. wide. Heavy-gauge metal, rust-resistant finish. *Mailable.*

84 KR 3154—Ship. wt. each 1 lb.....Each $1.19; 4 for $4.49

H JORGENSEN STEEL SPINDLE HANDSCREWS. Provide equal distribution of pressure on flush or angular work. Hard Maple jaws, handles.

84 KR 3153—*Mailable. State length of jaws wanted.*

Jaw Length	Jaw Opens	Jaw Reach	Ship. wt.	Each
8 in.	4½ in.	4 in.	2½ lbs.	$2.98
10 in.	6 in.	5 in.	3½ lbs.	3.45
12 in.	8½ in.	6 in.	5½ lbs.	3.98

J "C" CLAMPS. Malleable iron. Deep throat. Machine screw thread on 1 to 3-in. sizes. Acme thread screw on 4 to 8-in. sizes.

84 KR 3160 L—*Mailable. State size wanted.*

Size	Depth	Ship. wt.	Each	2 For	Size	Depth	Ship. wt.	Each	2 For
1 in.	1 in.	5 oz.	19c	35c	5 in.	3¼ in.	2½ lbs.	$1.15	$2.19
2 in.	1 in.	7 oz.	25c	47c	6 in.	3½ in.	3 lbs.	1.35	2.49
3 in.	2 in.	1 lb.	79c	$1.45	8 in.	4 in.	4½ lbs.	1.98	3.69
4 in.	3 in.	1¾ lbs.	$1.05	1.98					

K 10 ASSORTED DOWEL RODS. 4 (¼-in. diam.), 3 (⅜-in. diam.), 1 (½-in. diam.), 1 (⅝-in. diam.), 1 (¾-in. diam.). 16 inches long.

84 KR 3176—Ship. wt. 1 lb.....Assortment 39c

L TOOL LIGHT. UL Approved. 24 in. long. With 6-ft. cord and plug.

84 KR 2972—Use 60-watt bulb (not incl.). Ship. wt. 3 lbs. 8 oz.....$3.25

M FRANKLIN'S EVERTITE LIQUID GLUE. For wood, paper, fibers, pottery, ceramics, etc. Dries clear. Moisture resistant.

84 KRP 3170—4-oz. Squeeze Bottle. *Postpaid*.....60c

84 KRP 3168—1-Pint Squeeze Bottle. *Postpaid*.....$1.50

N WELDWOOD POWDERED RESIN GLUE. For all wood bonds. 8-oz. can.

84 KRP 3174—*Postpaid*. Stain-free, rot-proof, water-resistant.....65c

P CABINET MAKERS' BAR CLAMPS. Steel and cast-iron construction. 1¾x2-in. jaw face. Sliding jaw spring locks on ¼x1½-in. steel bar. Crank adjustment of 4½-in. Acme threaded screw. *Mailable. State size.*

84 KR 3152 M—Opens to 3 ft. Wt. 9 lbs.....Each $4.45; 2 for $8.50
Opens to 4 ft. Wt. 10 lbs.....Each 4.95; 2 for 9.50

R GLUING CLAMP. Use any length ¾-in. threaded pipe (not included). 1½x1⅞-in. jaw face. Spring tension lock. Crank adjusts to 1⅞ in.

84 KR 3151L—Ship. wt. 3 lbs. 8 oz.....Each $2.15; 2 for $3.98

T GLUING CLAMP. Use any length 1⅜x2½-in. wood bar (not included). 1⅝x1¾-in. sliding jaw face. Hand crank adjusts to 2 7/16 in.

84 KR 3150 L—Ship. wt. 4 lbs.....Each $2.10; 2 for $3.95

U TO **W** CONTINUOUS SCREW-TYPE VISES for wood work—valuable addition to any workshop. Adjustable stops in front jaw. Sturdy cast-iron jaws provide positive grip. Holes for mounting wood faces. Wood handles. *Mailable.*

Catalog Number	Med. Duty (U) 84KR 3165M	Med. Duty (U) 84KR 3161 MB	Heavy Duty (V) 84KR 3162 MB	Heavy Duty (W) 84KR 3163 MB
Jaw Width	6 in.	7 in.	7 in.	10 in.
Jaw Depth	3⅛ in.	3 3/16 in.	4 in.	4 in.
Opens to	6¾ in.	7 in.	9 in.	12 in.
Screw Diam.	¾ in.	¾ in.	1 in.	1 in.
Ship. Wt.	13 lbs.	17 lbs.	28 lbs.	33 lbs.
Price	$6.95	$8.75	$11.95	$14.75

X QUICK ACTING TYPE HEAVY-DUTY VISE. Half-turn of handle disengages screw and permits jaw to slide back and forth. 1¼-inch diameter screw. Similar to vise 84 KR 3163MB above. Holes for mounting wood faces. *Mailable.*

84 KR 3164 MB—Ship. wt. 33 lbs.....$16.45

Y VERSA-VISE. Nationally known. Cast semi-steel. Stands up or lies flat on either side. Full 360° swivel. Locks firmly in any position. Base included. Jaws 2½ in. wide, 3½ in. deep, open to 5 in.

84KRP3157 M–*Postpaid* .$12.95

Z EXTRA MOUNTING BASE. For (Y). Mount extra base in different places; one vise does the work of many.

84 KRP 3158—*Postpaid*. .$1.50

AA LIGHT-DUTY VISE. Continuous ⅝-in. diam. screw. Has holes for mounting wood faces. Sturdy cast-iron jaws 6½ inches wide, 3½ inches deep; open to 4½ inches. Weighs 5 lbs.

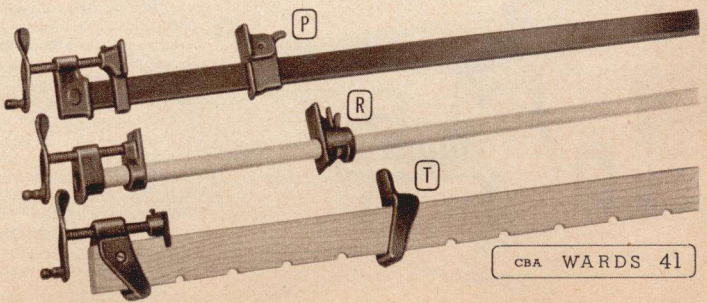
84 KR 3159—Wt. 6 lbs...$2.98

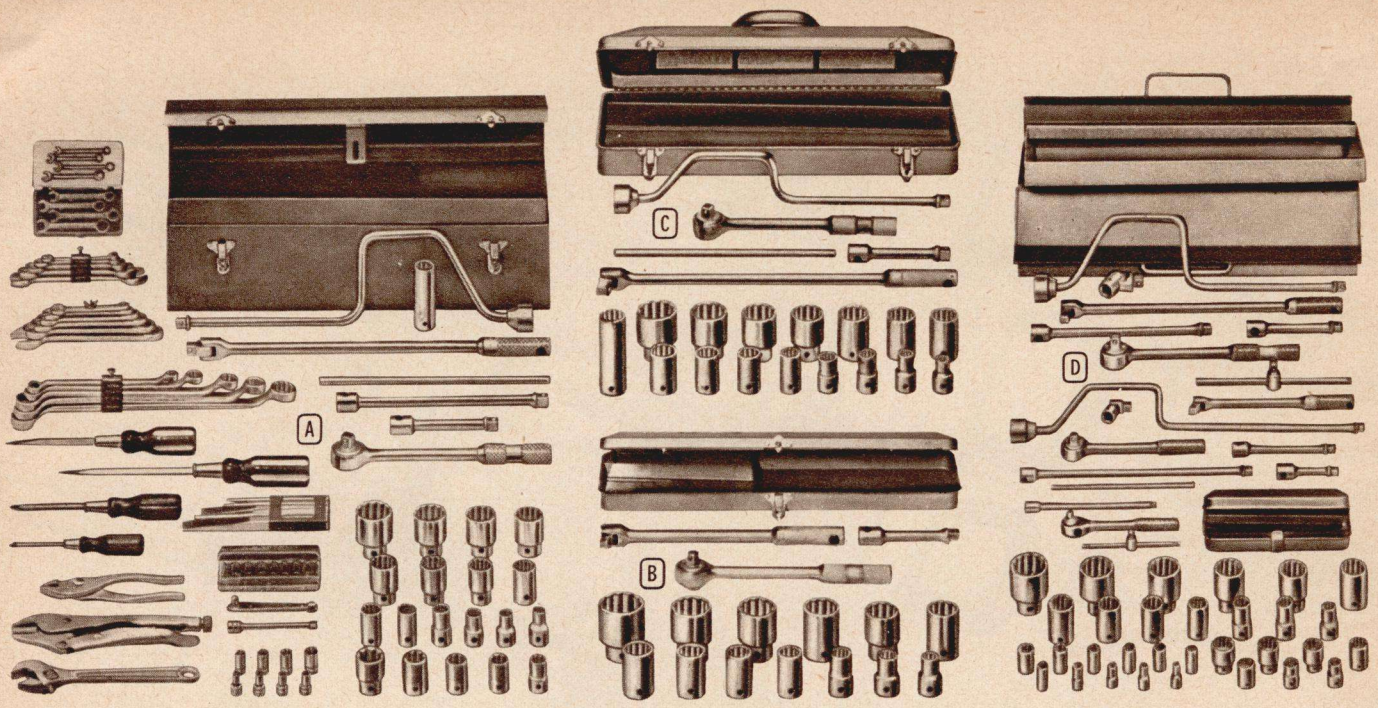
GENERAL PURPOSE BENCH VISES 7.75 TO 11.95

BB BENCH VISES. Lakeside (Better) Quality. Medium duty for all 'round use in home or shop. Strong, durable semi-steel construction. Channel iron slide bar. Polished cut-off tool, handy anvil surface. Red enamel finish. *Mailable.*

Catalog Number	Jaws	Open to	Takes Pipe	Swivels	Ship. wt.	Price
84 KR 5413 M	3½ in.	4½ in.	¼ to 2 in.	90°	19 lbs.	$7.75
84 KR 5414 MB	4 in.	5 in.	¼ to 2 in.	360°	25 lbs.	10.45
84 KR 5420 MB	5 in.	5 in.	¼ to 2½ in.	360°	30 lbs.	11.95

CREDIT TERMS ARE AVAILABLE ON ORDERS OF $20 OR MORE. DETAILS ON PAGE 32.





Guaranteed Speedmaster Socket Wrench Sets

WARDS SPEEDMASTER SOCKET SETS FOR YEARS OF SERVICE AND DEPENDABILITY

WARDS BEST QUALITY SOCKET SETS—SPEEDMASTER. All sets greatly exceed U. S. government specifications GGG-W-641-B. They are "Hot-forged" of finest quality special alloy steel which includes: Chrome for greater hardness and superior rust-resistance; Molybdenum for added strength and durability; and Nickel to prevent cracking or chipping.

Sockets are hot-forged between dies under intense heat, prevents internal stresses of metal. Forging process increases strength and durability of metal while reducing weight. Socket walls are made thinner to fit into small places more easily. Correctly balanced precision sockets have clean cut teeth. Hole in drive-end of socket engages ball bearing in attachments. 90° universal ball joint will hold sockets in any position. All parts chrome plated for lasting finish. Parts are standard to fit any brand set of same size. Reversible ratchets have head and handle of 1-piece hot-forged alloy steel.

Wards Speedmaster socket sets are guaranteed against defects in workmanship and materials and will be replaced if found defective. Meet professional mechanics' standards for strength and efficiency in operation.

SOCKET WRENCH AND TOOL SET 37.95

(A) 73 - PIECE COMBINATION SOCKET WRENCH AND TOOL SET. Designed to handle all types of repair and assembly jobs. All sockets and attachments are Speedmaster Quality—the finest hot-forged special alloy steel with rust-resistant chromium plated finish.

¼-IN. DRIVE PARTS. 8 sockets—four 6-pt., 3/16, 7/32, ¼, 9/32 in.; four 12-pt., 5/16, 11/32, 3/8, 7/16 in.; reversible ratchet; 5-in. extension; in separate plastic box.

½ - IN. DRIVE PARTS. Fourteen 12 - point sockets—3/8, 7/16, ½, 9/16, 5/8, 11/16, ¾, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8 and 1 1/4 in.; five 8-point sockets—7/16, ½, 9/16, 5/8 and ¾ in. one 13/16-in. deep wall socket; two extensions, 5 and 10 in. long; 18-in. flex handle with crossbar; speeder handle; reversible ratchet; metal tote tray.

WRENCHES. 8 - pc. ignition set, open and box end—13/64x7/32, 7/32x15/64, 15/64x¼, ¼x9/32, 9/32x5/16, 5/16x11/32, 11/32x3/8, 3/8x7/16-in.; 5-pc. box end set—3/8x7/16, ½x9/16, 5/8x¾, 11/16x¾, 13/16x7/8 in.; 6-pc. auto kit, open and box ends—3/8x7/16, 7/16x½, ½x9/16, 9/16x5/8, 5/8x¾, ¾x7/8 in.; 5-pc. open end set—5/16x11/32, 3/8x7/16, ½x9/16, 19/32x11/16, 5/8x¾ in.; 8-in. adjustable wrench.

MISCELLANEOUS: 5-pc. punch and chisel set; 2 standard screwdrivers—4 and 6-inch; 2 Phillips screwdrivers—No. 1 and No. 2; 6-in. combination plier; 9½-in. locking plier. Strong metal tool box 19x6½x6¼ in. *Mailable.*

84 KR 4796 MB—Ship. wt. 31 lbs. $4 Down. Cash $37.95

½-INCH DRIVE SETS 13.95 AND 18.50

(B) 17 - PIECE SPEEDMASTER SET. Socket sizes 7/16 to 1¼ in. Most popular drive size for general auto repair and assembly work. With 10½-in. reversible ratchet; 12-in. flex handle; 5-in. extension; thirteen 12-point sockets—7/16, ½, 9/16, 5/8, 11/16, ¾, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1¼. Complete with 16x2½x2-in. steel box.

84 KR 4795 M—Ship. wt. 7 lbs. 8 oz. . . $13.95

(C) 22-PIECE SPEEDMASTER SET. Most popular socket sizes and most versatile accessories make this an ideal kit for mechanics, farmers, homeowners. Covers wide range of socket sizes from 3/8 to 1¼ inch. Set includes: 10½-in. reversible ratchet; 18-in. flex handle with crossbar; 18-in. speeder handle; 5-in. extension; fifteen 12-point sockets—3/8, 7/16, ½, 9/16, 5/8, 11/16, ¾, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1¼ and one 12-point 13/16-inch deep socket for spark plugs. Complete with 19¼x6 7/8 x3½-in. steel box.

84 KR 4799 M—Ship. wt. 13 lbs. $18.50

SEE WARDS GENERAL CATALOG FOR MORE SOCKET WRENCH SETS AND ACCESSORIES.

COMBINATION DRIVE SET 38.50

(D) 51-PIECE SPEEDMASTER SET. Has 31 sockets from 3/16 to 1¼ in. For all types of repair, assembly, maintenance work. 15-pc. ¼-in. midget set for ignition, radio, electrical appliance work. 20-pc. ½-in. drive set has wide range of sockets for general work.

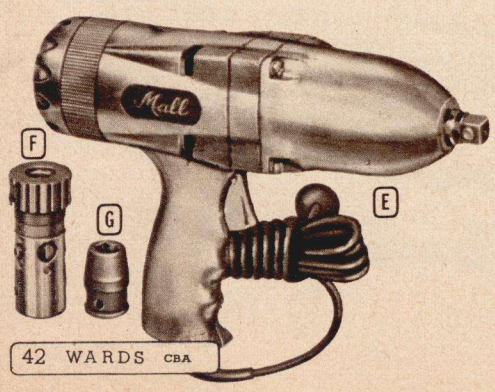
¼-IN. DRIVE PARTS. Includes 5½-in. reversible ratchet; 4½-in. sliding "T" handle; 6-in. extension; eight 6-pt. sockets 3/16, 7/32, ¼, 9/32, 5/16, 11/32, 3/8, 7/16 in.; three 8-pt. sockets—¼, 5/16 and 3/8 in.

3/8 - IN. DRIVE PARTS. Include: 7 - in. reversible ratchet; 17-in. speeder handle; 8¼-in. sliding "T" handle; 8-in. flex handle with crossbar; 3 extensions—3, 5, and 12-in.; universal joint, seven 12-point sockets—3/8, 7/16, ½, 9/16, 5/8, 11/16, ¾ in.

½-IN. DRIVE PARTS. Includes: reversible ratchet; 18-in. speeder handle; 18-in. flex handle with crossbar; 5 and 10-in. extensions; thirteen 12-pt. sockets—7/16, ½, 9/16, 5/8, 11/16, ¾, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1¼ in. 21x8½x7¼-in. heavy-duty steel box has double cover for access to entire box and full size 2-compartment tote tray.

84 KR 4855 Y—Ship. wt. 26 lbs. $4 Dn. Cash $38.50

SOCKET SET ONLY (without box). Ship. wt. 16 lbs.
84 KR 4793 M—$3.50 Down. . . . . Cash $34.95



MALL PRODUCTION-TYPE ELECTRIC IMPACT TOOL . . . NOW ONLY 89.00

(E) Fast-working portable tool with Mall "torkhammer" action for factories, garages, filling stations, etc. Powerful rotary impacts for tightening or removing operations. Power and stamina for running up to 7/8-in. nuts. Forced ventilation keeps motor cool under continuous operation. Universal type electric motor is reversible. Will not stall—slip clutch permits motor to run free even if drive spindle stalls. Motor operates on 110–120 volts, 60 cycle AC or DC. UL Approved. Free spindle speed is 1900 RPM. Hammer is mounted on anti-friction bearings for longer wear. Lightweight yet plenty tough; weighs only 7 lbs. Aluminum alloy housing. Size overall: about 11 in. long, 3 in. wide. Ideal for close quarter work. Contour pistol grip and trigger switch for balanced control and instant power response . . . easy to operate. Includes 10-ft., 18-ga. heavy rubber cord, three-conductor type with grounding wire. Accessories listed below. *Mailed Postpaid.*

84 KRP 9281—$9 Down. . . . . or Cash $89.00

(F) JACOBS TAP CHUCK. Converts Impact Tool into drill for reaming, tapping, drilling, etc. Capacity 3/16 to ½ in. taps. Accommodates round shanks .194 to .381 in., square shanks .118 to .360 in. Wrench included.

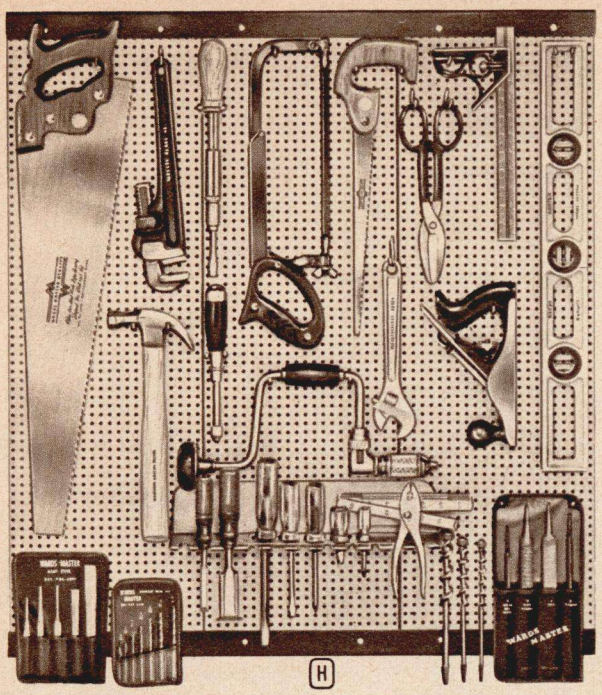
84 KRP 9370—*Postpaid* $12.84

(G) IMPACT SOCKETS. ½-in. drive. 7/16, ½, 9/16, 5/8, 11/16, ¾, 3/16, 7/8-in. sizes. *State size.*

84 KR 4870—Ship. wt. 6 oz. ea. . . . . Each 65c

IMPACT SOCKET SET. Includes all sizes above.
84 KR 4890—Ship. wt. 4 lbs. . . . . 8-Pc. Set $4.95

WARDS MONTHLY PAYMENT PLAN: SEE PAGE 32.



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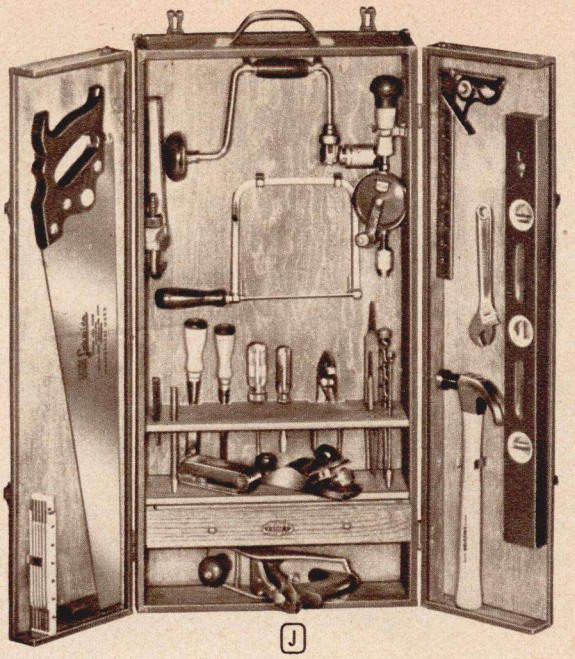


(J)

Hand Tool Outfits to Complete Your Workshop

PERFORATED METAL TOOL RACK WITH 41 FINE HAND TOOLS 59.95

(H) COMPLETE 42-PC. OUTFIT. With 3-section perforated 20-ga. steel tool rack . . . a workshop at your fingertips. Contains basic equipment needed for any shop. Every tool a piece of fine quality equipment, built to provide years of dependable service. All items carefully selected as being the most frequently used in a power tool workshop. Finest in quality ever offered under the Ward Guarantee. Designed to help you keep "doing-it-yourself". Rack has room for additional tools—will hold over 75 pieces.

Set includes: 12-in. Compass Saw; 3¼-in. adjustable Hacksaw with 10-in. blade; No. 4 Smooth Plane; 12-in. Combination Square; 6-ft. Folding Rule; 5-pc. Screwdriver Set; Ratchet Screwdriver with 3 bits; 4-pc. File Kit; Heavy-duty Ratchet Bit Brace; 3-pc. Auger Bit Set; Ratchet Push Drill; 16-oz. Claw Hammer; Aluminum Hand Level; 5-pc. Punch-Chisel Set; 2-pc. Wood Chisel Set; 10-in. Adjustable Wrench; 6-in. Combination Pliers; 10-in. Tin Snips; 14-in. Pipe Wrench; 26-in. Crosscut Saw; 7-pc. Straight Shank Drill Bit Set; 36 assorted hooks; shelf for miscellaneous items.

Rack mounts directly on wall—neat and convenient, no framing necessary. Baked-on Gray enamel finish, Blue trim. Shipped from Stock.

84 KR 4327 R—Ship. wt. 51 lbs. *Not Mailable*. $6 Down . . . . . Cash $59.95

2-SECTION, PERFORATED STEEL TOOL RACK ONLY. With 24 assorted hooks.

84 KR 4325 M—Size 22 by 36 in. Ship. wt. 12 lbs. *Mailable*. $5.65

3-SECTION, PERFORATED STEEL TOOL RACK ONLY. With 36 assorted hooks.

84 KR 4326 M—Size 33 by 36 in. Ship. wt. 17 lbs. *Mailable*. 7.95

SOLDERING GUN KIT 11.95 . . . PIPE THREADING OUTFIT 18.95

(K) SOLDERING GUN KIT. Compact fast-heating unit. Wards Master Qual. gun rated at 250 watts. Transformer-type gun heats in only 5 seconds. 2-replaceable tips. 110–120 volt, AC. UL Approved. Built-in spotlight. With two 4-oz. cans of solder, 6-ft. cord, compact metal case.

COMPLETE SOLDERING OUTFIT.

84 KR 6075—Ship. wt. 3 lbs. $11.95

SOLDERING GUN ONLY WITH TIP.

84 KR 6067—Ship. wt. 2 lbs. 9 oz. . . . $9.25

EXTRA TIPS FOR (K). Wt. ea. 2 oz.

84 KR 6083—Plastic Tile Cutting 39c

84 KR 6084—Iron Plated Soldering . . . 39c

(L) PIPE THREADING KIT. You can do your own plumbing work quicker and easier and eliminate costly repair bills with this economical outfit. Ratchet action stock.

Complete set includes: ½, ¾, 1-inch pipe size alloy chrome vanadium steel dies with ½, ¾-inch guide bushings—stock acts as guide for 1-inch size. Malleable iron 1¼-inch pipe vise with hinged jaws; 1-inch pipe cutter with tool steel blade. Ship. wt. 20 lbs.

84 KR 6234 MB—*Mail*. . . . $18.95

25-PC. TOOL OUTFIT 43.50

(J) TOOL CABINET SET. Especially designed by Wards for both portable and workshop use. Can be used as a portable unit—store in closet or other small space. Just as handy when mounted above your workbench or in the workshop to provide enclosed storage for all tools. Stands upright, whether open or closed. Ideal for the home craftsman, perfect for apartment hobbyist. ⅜-in. thick plywood cabinet covered with mahogany finished steel; interior is stained. Individual tools are selected from Wards General Catalog.

Set includes 24 Better Quality tools as follows: 26-in. Crosscut Saw; Block Plane; 9-in. Smooth Plane, 2 Wood Chisels; 2 Screwdrivers; Hand Drill with 8 Bits; Ratchet Bit Brace, 2 Auger Bits, Claw Hammer, Folding 6-ft. Rule, Combination Square; Pipe Wrench, Carpenters' Pencil, Finishing Nail Set; Carpenters' Wood Level, Combination 6-in. Pliers; 6-in. Adjustable Wrench, 8-in. Mill File, 6-in. Taper File, Coping Saw, Handy sander. Hooks and clips for hanging tools, carrying handle, and locking hasp. *Mailable*.

84 KR 4311YO—Complete with tools. Wt. 45 lbs. $4.50 Down . . Cash $43.50

84 KR 4310 MO—CABINET ONLY without tools. Ship. wt. 24 lbs. 11.95

CARPENTERS' AND UTILITY TOOL BOXES 4.25 TO 9.95

Tool Boxes of heavy-gauge steel construction, electrically welded for greater strength. All have rust-resistant green hammerloid finish.

(M) INDUSTRIAL TYPE TOOL BOX. 21x8½x7¼ in. Extra strong. Double covers, 2-compartment tote tray. Piano-type hinges.

84 KR 4324 M—Wt. 9 lbs. 12 oz. $4.25

(N) TOOL BOX WITH 6 CANTILEVER TRAYS. Trays automatically spread out when box is opened. 20x8⅝x10 in. Piano-type hinge.

84 KR 4355 M—Ship. wt. 13 lbs. $9.95

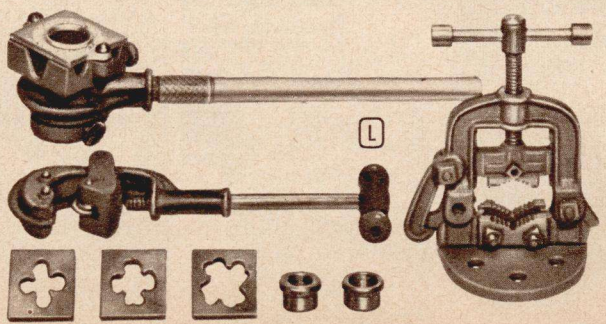
TOOL BOX WITH 4 CANTILEVER TRAYS (not shown). Same as (N) but smaller. 16x8⅝x7⅞ in.

84 KR 4356 M—Wt. 11 lbs. $7.45

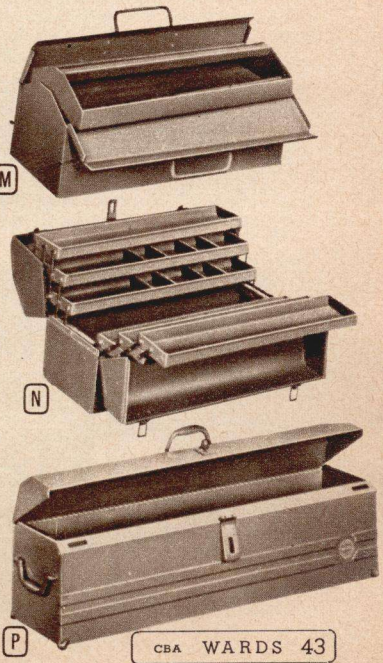
(P) CARPENTERS' GABLE TOP BOX. 32x8¼x9¾ in. Wood blocks protect saws, sharp tools. 2 openings for squares; clips for level. End handles.

84 KR 4312 MO—Ship. wt. 17 lbs. $6.75

(K)



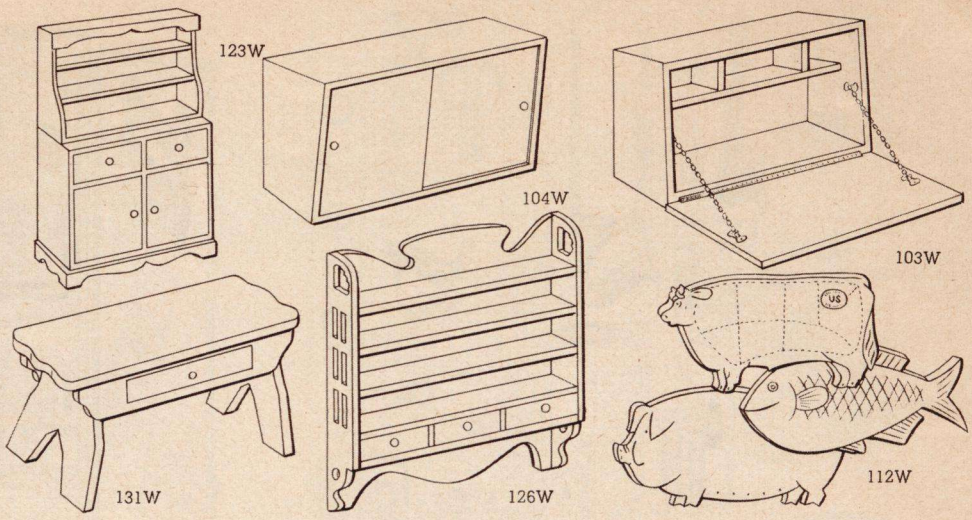
(L)



(M)

(N)

(P)



McCall's New "Iron-on" Woodworking Patterns

The most exciting news in "Do-it-Yourself" patterns—McCall's revolutionary new iron-on feature. For the beginner and skilled craftsman alike—no more scaling or tracing necessary. You can do the job in a matter of minutes with an ordinary household iron. These new patterns come ready to iron directly on the wood (see illustration at left).

All patterns are full-scale, have clearly illustrated guide sheets with each pattern giving full details on cutting, assembling, finishing. No lumber wastage—just refer to complete materials list and layout diagram furnished. An easy, economical method to transfer accurate, smartly-styled patterns on wood.

McCall's patterns are now available in 33 contemporary and traditional designs for home furnishings, kitchen, barbecue and outdoor accessories. It's easy woodworking and fun too—just iron on and cut. Write to Dept. MC-55 for free brochure with picture and description of each of the attractive projects listed below.

84 KRP 3035—*State Catalog Number and pattern number wanted. All Patterns Mailed Postpaid from Stock.*

No. 102 W—Spice Rack, 6x19x32 in.....50c
No. 103 W—Wall Desk, 8½x28x15 in.....75c
No. 104 W—Wall Cabinet, 10x33x14 in.....75c
No. 105 W—Miniature Four-Drawer Chest....40c
No. 106 W—Herb and Spice Chest, 4x24x8½ in. 50c
No. 107 W—Plant Holders, 15-in. diam.....50c
No. 109 W—Book Reference Rack, 10x33x12 in. 50c
No. 110 W—Wall Dispenser, 15 in. square.....50c
No. 111 W—Wall Plaques (Veget., Fruit).....50c
No. 112 W—Wall Plaques (Animals).....50c
No. 113 W—Barbecue Utensil Rack.....50c
No. 114 W—7-ft. Barbecue Table and Benches.75c
No. 115 W—Sliding Door Cabinet, 13x37x37 in. .50c
No. 116 W—Desk, 13x37x37 in.....50c
No. 117 W—Garment Rack, 13x37x37 in.....50c
No. 118 W—Corner Cabinet, 37 in. high.....50c
No. 119 W—Drop-Front Chest, 13x37x37 in.....50c
No. 120 W—Headboard Storage, 13x37x37 in...50c
No. 121 W—3-shelf Bookcase, 13x37x37 in.....50c
No. 122 W—Record Cabinet, 13x37x37 in.....50c
No. 123 W—Traditional Cabinet, 5 ft. high.....75c
No. 124 W—Contemporary Cabinet.....75c
No. 125 W—Hutch Table, 34x60x30 in.....75c
No. 126 W—Hanging Wall Shelf, 25x26½ in..60c
No. 127 W—Mirror Frame, 14½x28 in.....50c
No. 128 W—6-drawer Miniature Cabinet.....50c
No. 129 W—Book Shelf, 8x32x15¾ in.....60c
No. 130 W—Trays, 27½ in. high.....50c
No. 131 W—Child's Stool, 13 in. high.....50c
No. 132 W—Terrace Chair 30¾ in. high.....60c
No. 133 W—Triangular Plant Box.....50c
No. 134 W—Tapered Plant Box.....50c
No. 135 W—Paneled Screen 7 ft. high.....75c

INFORMATIVE BOOKS FOR YOUR WORKSHOP LIBRARY $1.69 TO $6.98

(A) HOW TO REFINISH FURNITURE. Tells how to accomplish 15 different finishes . . . fit into any decorative scheme. Easy-to-understand text. Photographs illustrate all processes involved.
53 KR 1162—144 pgs. 10x7 in. Ship. wt. 1 lb..$1.89

(B) BUILD YOUR OWN MODERN FURNITURE, by Klaus Grabe. Over 20 beautiful, easy-to-build pieces, designed exclusively by the author. Chapters on materials, layout, finishing, cutting with webbing and finishing. Illustrated.
53 KR 1194—144 pgs. 10x7 in. Ship. wt. 1 lb..$1.89

(C) POWER TOOL PROJECTS YOU CAN MAKE. Reveals professional tricks used to make a multitude of projects including built-ins, wall desks, etc. Step-by-step photographs supplement text. Material lists, cutaway drawings. Illust.
53 KRP 1195—140 pgs. 10x6 in. *Postpaid*....$1.95

SET OF THREE BOOKS listed above. For workshop.
53 KR 1196—Ship. wt. set 3 lbs.....Set of 3 $5.00

(D) FURNITURE MAKING AND CABINET WORK by B. W. Pelton. Step-by-step directions for making all articles of furniture. Detailed plans, remodeling facts, planning, design, woodwork. Illustrated.
53 KR 1167—596 pgs. 9½x6 in. Wt. 3 lbs. 8 oz...$6.98

(E) POWER TOOL WOODWORKING FOR EVERYONE by R. J. DeChristoforo. Comprehensive guide covering operation of Shopsmith and all principal single purpose power tools. 450 photos and drawings.
53 KRP 1103—292 pgs. 7½x10 in. *Postpaid*.....$4.95

(F) BUILT-INS FOR HOME IMPROVEMENT. Utilize waste space with modern-style built-ins. Step-by-step instructions and illustrations.
53 KR 1161—137 pgs. 8½x5½ in. Wt. 14 oz.....$1.69

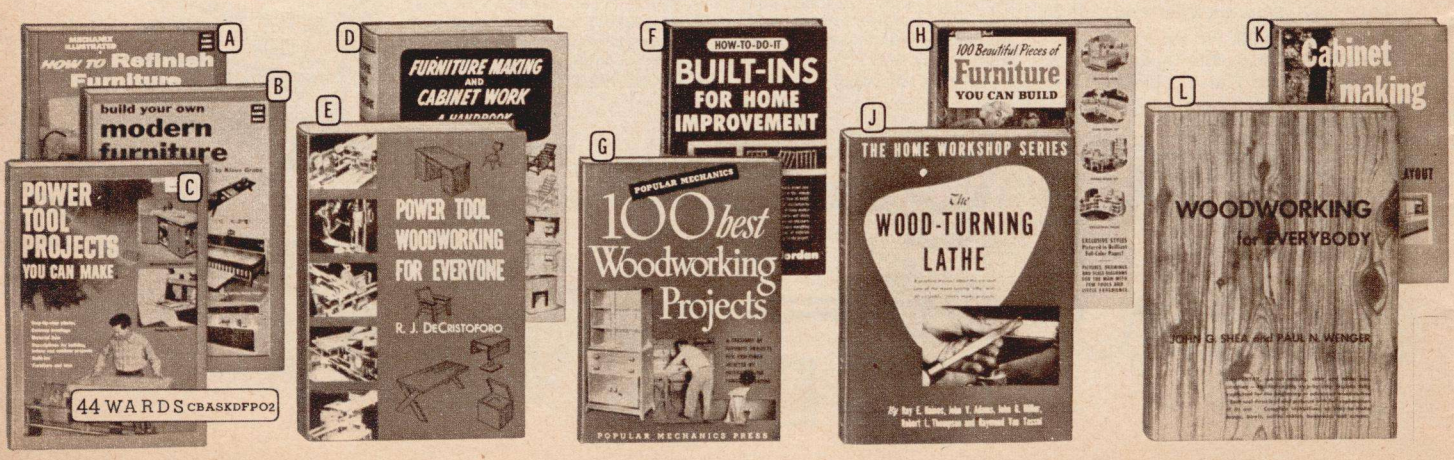
(G) 100 BEST WOODWORKING PROJECTS. Outstanding collection of easy-to-make projects, step-by-step instructions. All measurements, details are included in the book. Illustrated. 144 pgs.
53 KR 1125—9½x6¾ in. Ship. wt. 1 lb.....$1.89

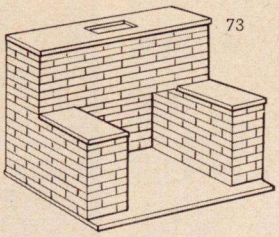
(H) 100 BEAUTIFUL PIECES OF FURNITURE YOU CAN BUILD. Step-by-step instructions. Graphic illustrations, diagrams for each project.
53 KR 1124—160 pgs. 9½x6½ in. Wt. 1 lb..$2.89

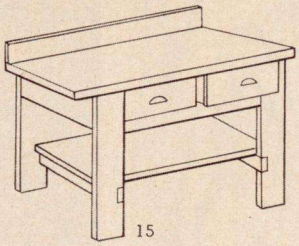
(J) THE WOODTURNING LATHE. Home Workshop Series. Covers every important fact about the use and care of this versatile tool. Hands-at-work photographs. Directions for 30 projects. 132 pgs.
53 KR 1128—10x7½ in. Ship. wt. 1 lb. 12 oz..$2.98

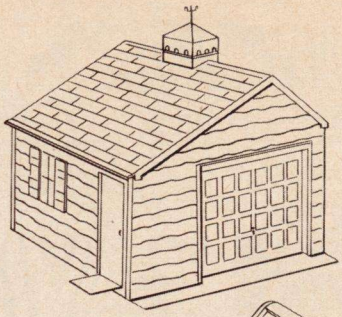
(K) CABINET MAKING AND MILLWORK by Dahl and Wilson. Increase efficiency on job. Discusses trade problems, practices, construction standards, tools, woods, etc. Illust. 235 pgs.
53 KR 1102—8½x5⅝ in. Ship. wt. 1 lb. 12 oz.$4.79

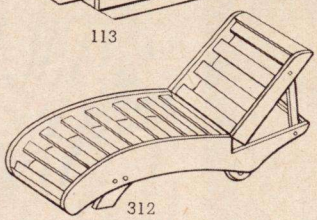
(L) WOODWORKING FOR EVERYBODY. Easy to make cabinets, chairs, tables, etc. 62 projects, step-by-step instructions. Description of shop equipment, processes, tools, woods. Illust. 207 pgs.
53 KR 1197—11x8½ in. Ship. wt. 2 lbs. 4 oz..$3.79

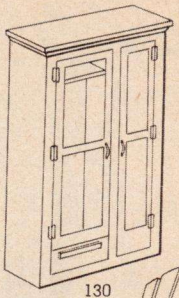


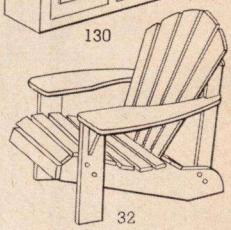












Build-It-Yourself with New "Easi-Bild" Patterns

You can build a wide variety of decorative and useful things yet save money too with Easi-Bild Patterns. They are easy to use and fun too. Paper patterns give complete instructions on how to build with wood, metal, panelboard or plastics. Simply cut each part to size of pattern, drill holes for screws, bolts, dowels, etc. in exact position as shown. Full size patterns are provided wherever necessary for making angle cuts, cutting scalloped edges or other curved parts. Where no full size pattern is required for a long length of lumber, metal, or large panel, exact cutting dimensions are given. Convenient and economical way to build garages, guest houses, and other large projects as well as smaller items to decorate or modernize your home. Easy-to-follow directions are ideal for unskilled as well as skilled persons. Every important phase of construction is clearly illustrated and explained in non-technical language. Write to Dept. EB-55 for free brochure which illustrates all 170 patterns now available. *State Catalog Number, Pattern Number.*

84 KRP 3027—ANY FOUR PATTERNS BELOW. *State Pattern Nos. Wanted. Postpaid* . . . 4 FOR 1.00

No. 1—Window Valance
No. 15—Handy Workbench
No. 19—Window Box
No. 20—Sandbox
No. 21—Hanging Bookshelf
No. 22—Picnic Table
No. 23—Fireside Bench
No. 24—Wall Shelf
No. 25—Magazine Rack
No. 26—Space Saver Wall Table
No. 27—Window Valance
No. 30—Window Valance
No. 34—Giraffe Clothestree
No. 36—Dutch Wall Cabinet
No. 37—Storage Chest
No. 56—Foldaway Chair
No. 57—Peasant Bench
No. 64—Colonial Cradle
No. 65—Toy Chest
No. 71—Tool Chest
No. 72—Amphibious Freighter
No. 73—Outdoor Fireplace
No. 74—Signs, House Nos.
No. 76—Terrace Chair
No. 79—Farm Yard Animals
No. 81—Lawn Ornaments
No. 83—Barn Yard Animals
No. 95—Modern Table
No. 96—Giant Footprints
No. 97—Picture Frame
No. 98—Modern Lamp
No. 99—Modern End Table
No. 117—Child's Playtable
No. 128—20, 40, 80-in. Room Dividers
No. 131—Christmas Decorations
No. 132—Jr. Briarcliff Chair
No. 154—Climbing Pole
No. 157—Valance Board
No. 191—Multiple Moderns
No. 301—Shadow Boxes
No. 303—Storm Window
No. 304—Garden Trellis
No. 306—String Chair
No. 307—Dining Bench
No. 313—Telephone Shelf
No. 314—Bermuda Kite
No. 325—Lawn Bench
No. 326—Terrace or Coffee Table
No. 345—Shoe Rack
No. 353—Tot's Step Stool
No. 539—Do-it-Yourself Primitives
No. 552—Ski-Hi Stilts
No. 555—Artist's Easel
No. 559—Candle Wall Sconce
No. 580—Geese Wall Decorations
No. 581—Rooster Wall Plaque

84 KRP 3028—ANY THREE PATTERNS BELOW. *State Pattern Nos. Wanted. Postpaid* . . . 3 FOR 1.00

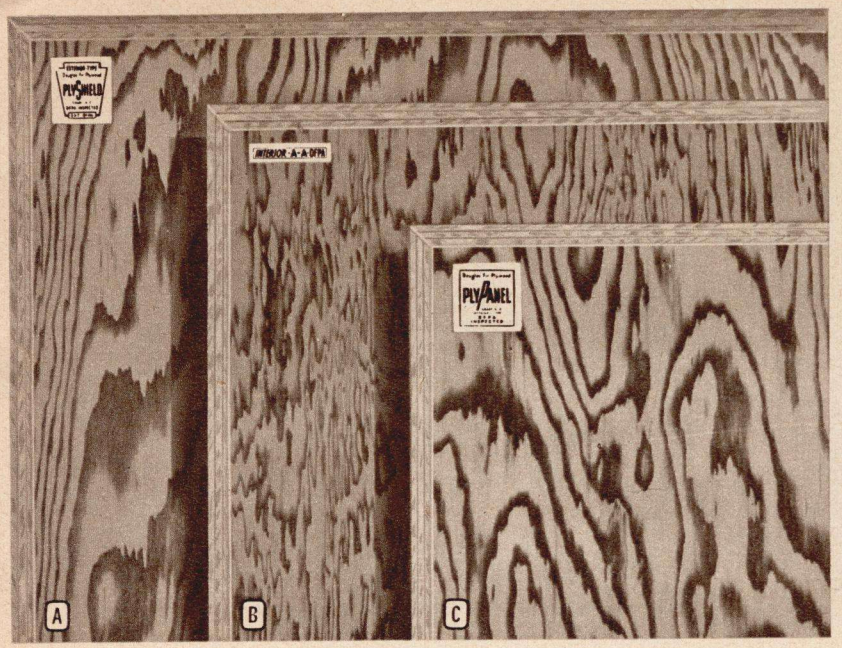
No. 16—Revolving TV Table
No. 17—Peasant Table
No. 18—Bookcase Hide-A-Desk
No. 29—Bathroom Valet
No. 32—Lawn Chair
No. 39—Lawn Settee
No. 40—Express Wagon
No. 43—Folding Snack Tables
No. 44—Sawhorse Tool Chest
No. 52—Coffee Table
No. 53—Pony Ride Rocker
No. 55—Foldaway Settee
No. 59—Doll Carriage
No. 66—46-in. Wheelbarrow
No. 68—Single or Double Bed
No. 75—Terrace Table
No. 78—Garden Chaise
No. 90—Stand-up Bar
No. 92—Modern Chair
No. 136—Early American Cabinet
No. 149—Christmas Window
No. 153—Jungle Gym
No. 161—Relax-A-Board
No. 192—Modern Record Cabinet
No. 193—Modern Cabinet
No. 309—Coffee Table
No. 310—Nativity Scene
No. 311—Modern Chair
No. 316—Superchef Barbeque
No. 322—Lawn Chair
No. 323—Folding Picnic Table
No. 324—Lawn Chaise
No. 331—Outdoor Xmas Greeting
No. 431—Santa Claus Decorations
No. 433—Christmas Reindeer
No. 435—Colossal Candy Cane
No. 524—Rooster Weathervane
No. 533—Rooster Pin-Up Lamp
No. 550—Decorator's Valance
No. 573—Kitchen Table Workbench

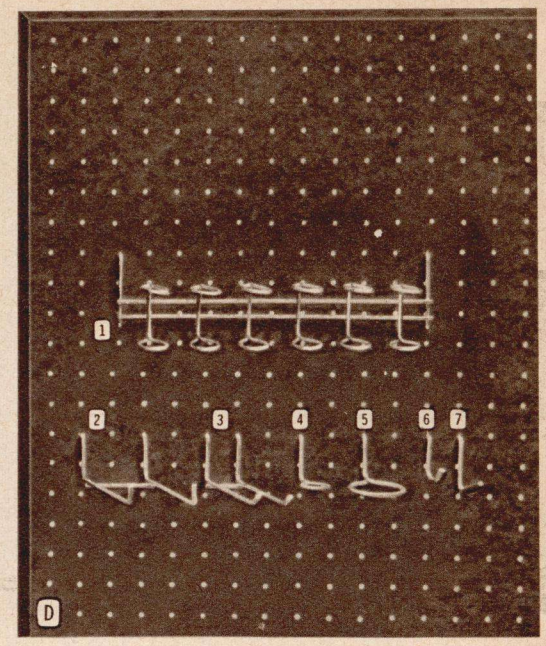
84 KRP 3029—ANY TWO PATTERNS BELOW. *State Pattern Nos. Wanted. Postpaid* . . . 2 FOR 1.00

No. 3—Kitchen Unit
No. 13—Hog House
No. 28—Dog House
No. 33—Dream Doll House
No. 38—Corner Cabinet
No. 41—Undersink Enclosure
No. 42—Modern Bookcase
No. 51—Tool and Garden House
No. 69—Martin House
No. 77—Sportsman's Barge-Boat
No. 82—Modern Indoor Planter
No. 86—Swing-up Garage Door
No. 87—Bedford Bunk Beds
No. 89—Lean-to Tool Shed
No. 93—Bulletin Board
No. 101—One-Car Garage
No. 126—Headboard Storage Unit
No. 127—Step End Table
No. 129—Chest Cabinet
No. 130—Gun & Fishing Rod Cabinet
No. 133—Cabinet Ironing Board
No. 135—Home Air Cooler
No. 137—Dining Table
No. 138—Dining Buffet
No. 140—Sliding Top Coffee Table
No. 141—Cabinet End Table
No. 155—Lawn Glider
No. 156—Cleaning Utensil Closet
No. 158—Lavatory Enclosure
No. 159—Frame a window or wall
No. 231—Fireplace Mantel
No. 241—Sink Enclosure
No. 242—Wall and Corner Cabinet
No. 243—Serving Center
No. 244—Storage, Veget. Preparation
No. 245—Mixing Center
No. 246—Dish Storage Cabinet
No. 263—Storage Wall on Casters
No. 264—Wall to Wall Bookcase
No. 265—Cedar Room
No. 269—Storage Chest
No. 271—Valance Bookcase
No. 305—Canopy
No. 312—Beverly Hills Chaise
No. 343—Night Table w/Drawers
No. 430—Sliding Door Storage Wall
No. 436—Record Cabinet
No. 438—School Policeman
No. 452—Extending Coffee Table
No. 537—Decorator's Library Desk
No. 541—Planter Lamp
No. 542—Modern Desk
No. 543—Sewing Table Cabinet
No. 544—Radiator Enclosure
No. 548—Modern Web Chair
No. 554—Outdoor Dining Table
No. 560—Three Wisemen Greeting
No. 562—Choir Boy's Greeting
No. 563—Slo-Down Safety Sign
No. 568—Stor-all Workbench

84 KRP 3030—ANY PATTERN BELOW. *State Pattern No. Wanted. Postpaid* . . . 1.00 Each

No. 14—Poultry House
No. 84—Guest and Tourist House
No. 85—Utility Boat
No. 112—Greenhouse
No. 113—Garage and Tool House
No. 201—Kitchen Cabinets
No. 248—The Sail Scooter
No. 249—Garden Tool House
No. 266—Sportsman's Cabinet
No. 272—Hi-Fi-Cabinet
No. 273—Town and Country Carport
No. 317—Sportsman's Kayak
No. 760—Add-A-Room Pattern
No. 761—Two-Car Garage Pattern





Plywood and Hookboard For Workshop Projects

PLYWOOD FOR ALL INTERIOR AND EXTERIOR USES

(A) TO (C) Real wood in panel form. Combination of wood veneers bonded with strong adhesives. Cross-ply of Douglas Fir gives 4 times strength of solid lumber of same thickness. Can be worked with hand tools or power-driven equipment. Will not split like ordinary lumber. Easily painted or covered with other surfacing material. Each piece bears grade mark of Douglas Fir Plywood Association. Shipped promptly from Stock. *Not Mailable.*

(A) PLYSHIELD FOR EXTERIOR USE. Waterproof, weatherproof. Plies bonded with strong phenolic resin adhesives. Face side sanded smooth, ready to finish, Grade A, free from knots, beautifully grained. Back side Grade C, has knots, other minor wood defects which do not impair strength. By steaming, sheets can be bent to smaller radius than other types of plywood. Use ⅜ in., ¾ in. where greater strength, rigidity are necessary. 4x8-ft. sheets only.

74 KR 3050 R—¼ in. Ship. wt. 26 lbs.....From Chicago $4.72; From Baltimore, Albany $4.88
74 KR 3051 R—⅜ in. Ship. wt. 36 lbs.....From Chicago 5.98; From Baltimore, Albany 6.24
74 KR 3054 R—¾ in. Ship. wt. 72 lbs.....From Chicago 10.40; From Baltimore, Albany 10.72

(B) HANDY-SIZE PANELS, INTERIOR GRADE. Exact-size, precision-cut sheets need little if any fitting if used to build cabinets, doors, furniture, etc. Both sides of panels Grade A, beautifully grained. Precision-machined smooth; both sides readily finished. *State Cat. No., Size, Quantity.*

Size In.	Ship. wt. Lbs.	¼ in. Thick, 3 ply 74 KR 3020 R		Ship. wt. Lbs.	⅜ in. Thick; 3 ply 74 KR 3021R		Ship. wt. Lbs.	¾ in. Thick; 5 ply 74 KR 3024 R	
		Chicago	Balt.Albany		Chicago	Balt.Albany		Chicago	Balt.Albany
16x48	5	98c	98c	.....	.....	.....	.....	.....	.....
24x48	7	$1.50	$1.55	9	$1.80	$1.85	.....	.....	.....
24x72	10	2.25	2.30	14	2.70	2.80	27	$4.20	$4.35
48x72	20	4.50	4.56	27	5.40	5.55	54	8.40	8.65
48x96	26	5.98	6.10	36	7.20	7.36	72	11.20	11.55

(C) PLYPANEL FOR INTERIOR USE. ¼ in. thick. 3 plies of seasoned, kiln-dried Douglas Fir bonded with water-resistant glue. Face side is Grade A, beautifully grained; precision-machined smooth, ready to be finished as desired. Back side is Grade D; has wood defects which do not impair overall strength. Easily worked with hand or power tools.

74 KR 3000 R—*State Size, Quantity.* 4x6 ft. Ship. wt. 20 lbs. Chicago $3.18; Balt., Albany $3.30
4x7 ft. Ship. wt. 23 lbs.....Panel From Chicago 3.70; Balt., Albany 3.85
4x8 ft. Ship. wt. 26 lbs.....Panel From Chicago 4.24; Balt., Albany 4.40

HOOKBOARD OUTFITS 2.59 AND 3.40

(D) Modern way to keep tools, cleaning supplies, etc. within easy reach. Perforated panels are ⅛-in. thick tempered hardboard. Mount on walls, doors, in closets, over workbenches, etc. Have smooth, hard finish on both sides. Natural wood-brown color; may be painted if desired. Holes are 1 in. apart. 2x4-ft. panel has over 1000 holes; 4x4-ft. panel has over 2000 holes. All-metal hooks are instantly removable; specially designed for firm support. Save by ordering complete set. Instructions included. Shipped from Stock.

HOOKBOARD PANEL WITH WORKSHOP HOOKS. Board with set of 30 hooks for hanging hammers, screwdrivers, narrow blade chisels, pliers, carpenter's plane, wrenches, awls, and supporting glass shelving. Easily installed. Set includes: one (1), two (2), one each (3), (4), two (5), six (6), seventeen (7). Ship. wt. 8 lbs. 12 oz. *Not Mailable.*

74 KR 2620 R—2x4-ft. Board with Hook Set.....$3.40
74 KR 2625—Tool Hooks only. Wt. 1 lb. *Mailable*..... 1.98

HOOKBOARD PANEL WITH CLOSET HOOKS. Handy board with set of 19 hooks for hanging brooms, mops, dustpans, tools, vegetable brushes, clothing, etc. Easily installed. Convenient set includes two (2), one each (3), (4), (5), six (6) and eight (7). Ship. wt. 8 lbs. 8 oz. *Not Mailable.*

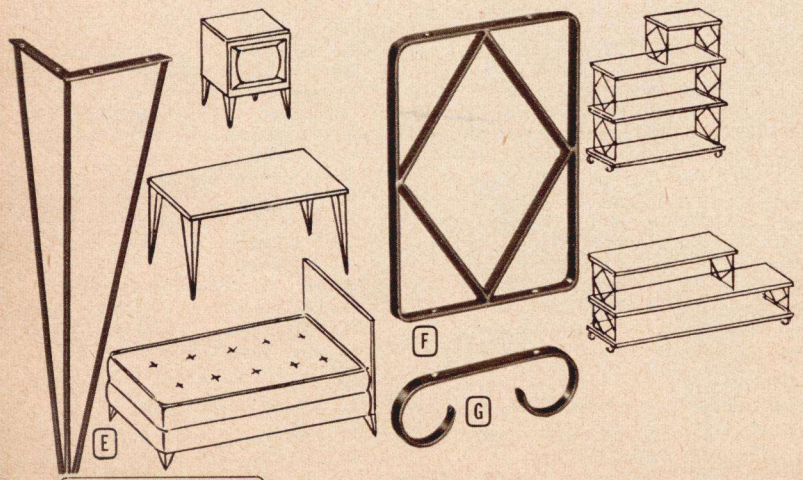
74 KR 2610 R—2x4-ft. Board with Hook Set.....$2.59
74 KR 2615—Closet Hooks only. Wt. 1 lb. *Mailable*.... 1.15

HOOKBOARD PANEL ONLY. Order Hooks separately.

74 KR 2605 R—2x4 ft. Ship. wt. 7 lbs. *Not Mailable*.....$1.49
74 KR 2600 R—4x4 ft. Ship. wt. 14 lbs. *Not Mailable*... 2.98

EXTRA UTILITY HOOKS. "L"-shaped like (7) above.

74 KR 2630—Ship. wt. doz. 5 oz. *Mailable*.....Doz. 27c



MODERN BLACK WROUGHT IRON LEGS, SHELF DIVIDERS

(E) WROUGHT-IRON LEGS. Make your own desks, tables, chairs, etc., at home using Wards modernistic wrought iron legs. Predrilled to simplify installation. Tri-bar construction is stronger than ordinary hairpin type—supports heavy TV sets, etc. Available in four convenient sizes. Use 6 in. for beds, sofas, etc.; 10 in. for coffee tables, cabinets, etc.; 16 in. for cocktail, dressing tables, chairs, etc.; 28 in. for dining tables, TV tables, desks, etc.

74 KR 4742—Set of 4 legs. *Be sure to state height. Mailable.*

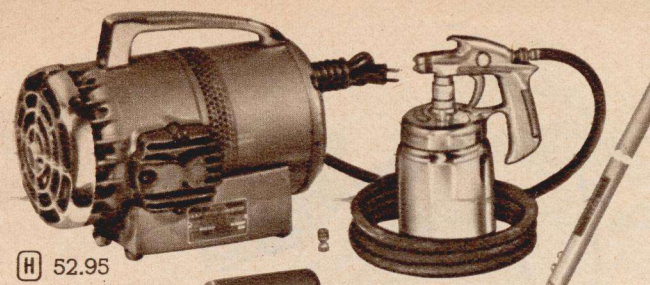
6 in. high. Ship. wt. 4 lbs. set.....Set of 4 $2.85
10 in. high. Ship. wt. 6 lbs. set.....Set of 4 3.15
16 in. high. Ship. wt. 9 lbs. set.....Set of 4 4.25
74 KR 4742 M—28 in. high. Ship. wt. 14 lbs. set.....Set of 4 5.50

(F) WROUGHT-IRON SHELF DIVIDERS. Make room partitions, bookcases, tables, desks, wall racks, etc. with 8x11-in. shelf dividers. ⅝ in. wide, ⅛ in. thick bars with modern diamond design. Predrilled at top and bottom for easy installation.

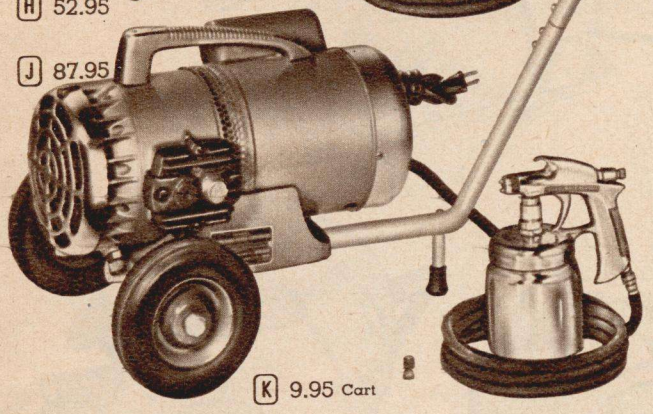
74 KR 4744—Ship. wt. 4 lbs. *Mailable*.....Pair $2.15

(G) WROUGHT-IRON BASE BRACKET. With rounded metal base to help protect floors. Predrilled holes for quick, simplified installation. No special skill or tools necessary. *Mailable.*

74 KR 4745—2½ inches high. Ship. wt. 1 lb. 8 oz. pair.....2 for 75c

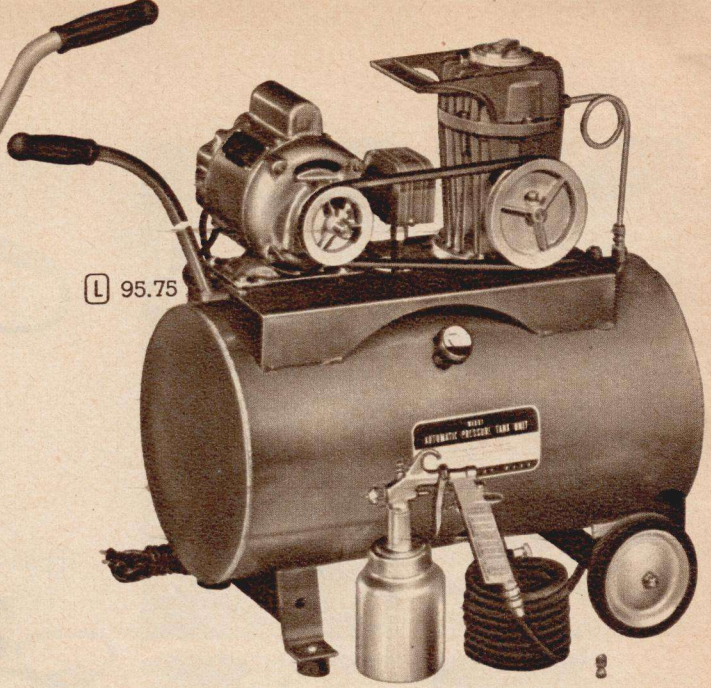


(H) 52.95



(J) 87.95

(K) 9.95 Cart



(L) 95.75

Ward Sprayers Speed Up Painting . . . 20% Down

BEST OIL-LESS PISTON PAINT SPRAYERS 52.95 TO 87.95

(H) (J) Compact, unit-design Sprayer in 4 models—3 twin piston and 1 single-piston.

After 4000 hours of continuous operation at the factory, the ¼-HP Twin-Piston model showed no appreciable wear. New gun has quicker adjustments. Excellent for painting exteriors, furniture, autos.

GRAPHITE RINGS FOR OIL-FREE AIR. The only *piston* sprayer Wards have ever seen with assurance of clean, dry, *oil-free* air delivery. Graphite piston rings need no oil; crankshaft, connecting rods have sealed-in ball bearings, lubricated for life. Blast cooling. Leakproof drain. Air filter.

SMOOTHER OPERATION. Short horizontal piston stroke; *opposed* in twin models. Balanced shaft. Ball bearings. Direct drive. Rubber cushions.

LIGHTWEIGHT. Aluminum alloy; aluminum cylinder head. Insulated carrying handle. Safety valve.

EXTERNAL-MIX COMBINATION GUN. For heavy or light fluids; slow- or fast-drying. Single nozzle adjustable to *round*, *fan* or *angle* spray. Needle adjusts to *coarse* or *fine* spray. For siphon, pressure or tank feed. Qt. aluminum paint cup.

Blue and red baked-on enamel. Aluminum trim. Tire chuck, 15-ft. air hose. Air outlets ¼ in. Heavy-duty, capacitor motor on (J), others split-phase—all for 110- to 120-volt, 60-cycle AC. The ¼-HP with bleeder guns, others with combination bleeder, non-bleeder guns. CFM means cu. ft. of air per minute.

Key	Catalog Number	Pistons	HP	Displaces	At RPM	Air Delivery	Working Pressure	Ship. wt.	Pay Down	Cash Price
(H)	75KR6455MB	1	¼	2.7 CFM	1700	1.8 CFM	30 lbs.	37 lbs.	$11.00	$52.95
(H)	75KR6456MB	2	¼	3.87 CFM	1650	2.3 CFM	35 lbs.	38 lbs.	13.50	65.95
(H)	75KR6464MO	2	⅓	4.72 CFM	1700	3.0 CFM	35 lbs.	45 lbs.	15.50	76.95
(J)	75KR6458MO	2	½	5.35 CFM	1690	3.7 CFM	37 lbs.	47 lbs.	18.00	87.95

(K) SPRAYER TRAILER CART. Attach quickly to sprayers (H) or (J) above; any of 4 sizes. Steel axle. Rubber-tired 6-in. wheels. Oilite bearings.

75 KR 6461M—Aluminum handle with rubber grip. Ship. wt. 7 lbs. . . $9.95

(L) PORTABLE DIAPHRAGM TYPE TANK MODEL WITH ¼-HP MOTOR. Gives an automatic supply of clean, dry air. Easily moved or can be anchored. Use for shops, studios, dental offices, etc. Switch maintains constant 30 to 45 lbs. tank pressure. Compressor delivers 2 cu. ft. of air per min. at 30 lbs. working pressure. Air intake filter, safety valve, moisture trap. Permanently greased ball bearings—no oiling. Motor: ¼-HP capacitor, 110- to 120-volt, 60-cycle AC. Wired directly to tank pressure switch. Cord, 10 ft. Gauge 0 to 75 lbs. Internal mix, non-bleeder gun with fan and round spray heads, qt. aluminum cup, 15-ft. air hose, V-belt, pulleys, tire chuck. On 11½-gal., welded steel tank. Complete with handle, rubber feet, wheels, axle. Size: 23x12x25 in. high. Extra replaceable diaphragm under (M) at right, above.

75 KR 6362 R—OUTFIT. Ship. wt. 95 lbs. $19.50 Down. . . . . .or Cash $95.75

75 KR 6363 R—OUTFIT LESS GUN, HOSE. Ship. wt. 90 lbs. . . . . .Cash 85.45

½-HP HEAVY-DUTY TWIN DIAPHRAGM MODEL 84.45 Outfit

(M) Displaces 6.7 cu. ft., delivers 3.3 cu. ft. per min. at 40 lbs. working pressure. Two 8-ply diaphragms. Intake air filters. Surge-chambers for steady air flow. Adjustable safety valve. Pressure gauge. Permanently lubricated sealed ball bearings. Outfit: Compressor; motor 110- to 120-volt, 60-cycle AC, ½-HP capacitor; internal mix bleeder gun with fan and round spray heads; qt. cup; moisture trap; 15-ft. air hose; steel base on 4 casters; V-belt; pulleys; tire chuck. Cord, 8 ft. Size: 21x11½x12½ in. high.

75 KR 6214 R—OUTFIT. *Not Mailable.* Ship. wt. 72 lbs. $17 Down. . . Cash $84.45

75 KR 6213 R—OUTFIT LESS MOTOR. *Not Mailable.* Ship. wt. 40 lbs. 61.25

75 KR 6224—SPRAY GUN ONLY. Gun usable with Tank (U). Ship. wt. 3 lbs. 9.75

75 KR 6350—EXTRA DIAPHRAGM. Shipping weight 4 oz. . . . . .Each 1.25

(N) AIR-LINE SPRAY UNIT. Lets you spray directly from compressed air lines. External mix, siphon feed spray with fan and round spray heads, 15-ft. air hose. Uses 2 to 4 cu. ft. of air per min. at 25 to 50 lbs. pressure. Gun interchangeable—bleeder, non-bleeder. Regulator with gauge, reduces air line or tank pressure from 250 lbs. to 0 to 140 lbs. Separator removes oil, water, dust. Condensation chamber; drain. Outlet ¼ in., inlet ⅜ in.

75 KR 6206—GUN, HOSE, REGULATOR, GAUGE, SEPARATOR. Ship. wt. 7 lbs. . .$18.75

75 KR 6221—REGULATOR, GAUGE, SEPARATOR ONLY. Ship. wt. 4 lbs. 8.25

75 KR 6220—REGULATOR, GAUGE ONLY for lines or Tank (U). Wt. 2 lbs. 5.50

(P) AIR-DUSTER BLOW GUN. Trigger control. Snout 3 in. long. Male ¼-in. pipe threads.

75 KR 6290—Nozzle 5/64 in. Ship. wt. 1 lb. $1.29

(R) RUBBER AIR HOSE. Use 15-ft. for replacement (no coupler); 25-ft. for extension. Fitting, ¼ in.

75 KR 6244—15-ft. Length. Ship. wt. 1 lb. $1.49

75 KR 6245—25-ft. With Coupler. Wt. 1½ lbs. . . 2.59

HEAVY RUBBER MATERIAL HOSE. Ship. wt. 2½ lbs.

75 KR 6276—15-ft. std. ⅜-in. pipe fitting. $2.75

(T) PAINTERS' RESPIRATOR. Protects lungs. Exhalation valve for easy breathing. Soft rubber adjustable face-piece. With 5 wool felt filters.

75 KR 6201—Shipping weight 10 oz. $2.19

75 KR 6205—2 packs 10 filters ea. Wt. 4 oz. . . .35c

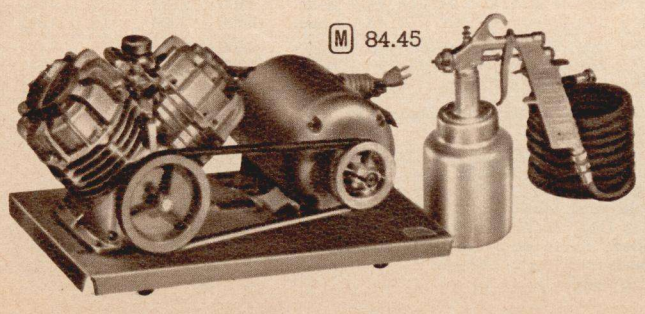
MORE SPRAYERS IN GENERAL CATALOG

(U) TIME-SAVING PAINT TANK. Holds 3 gals. Use with any Ward gun, sprayer or compressor listed. Sturdy, light weight steel, corrosion-resistant. Easy to clean and fill—6-in. opening. Cast-iron top. Hook for carrying and securing on ladder. Brass relief valve (45 lbs. pressure). With 10-ft. air hose, 10-ft. paint hose. See Adapter below.

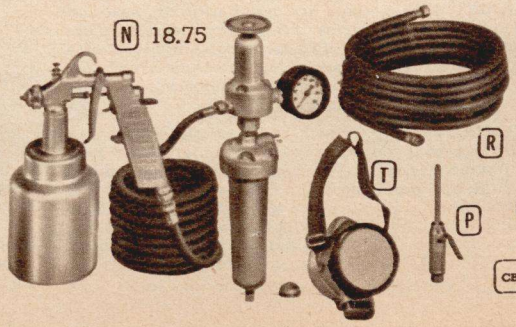
75 KR 6222 M—*Mailable.* Ship. wt. 15 lbs. $21.00

75 KR 6411—MATERIAL HOSE ADAPTER. Connects Tank (U) to Guns (H), (J). Ship. wt. 4 oz. 75c

(U) 21.00



(M) 84.45

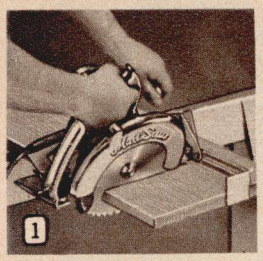


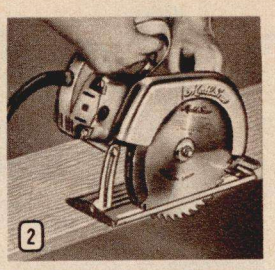
(N) 18.75

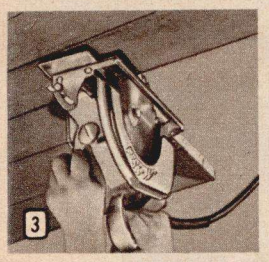
(R)

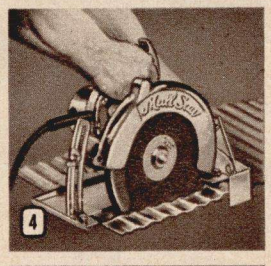
(T)

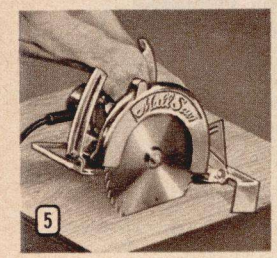
(P)

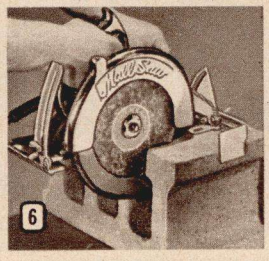


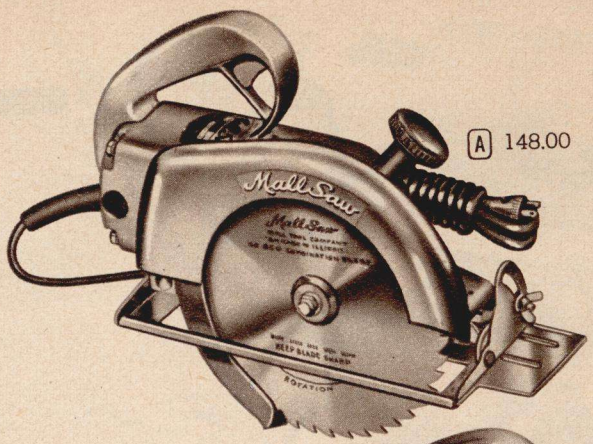


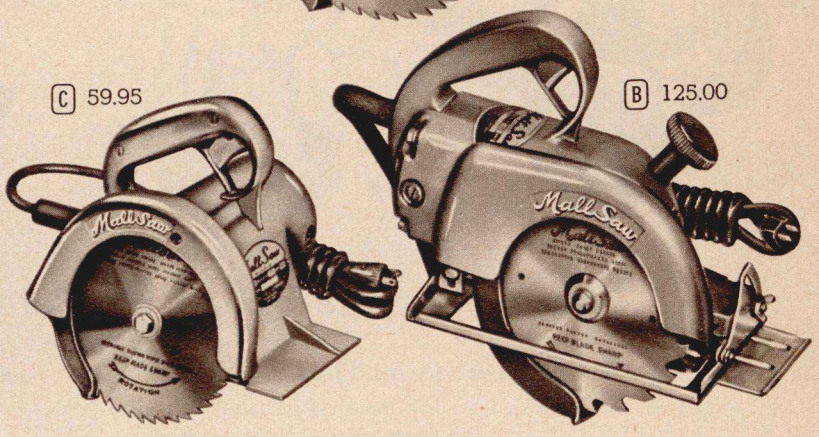












Portable Electric Saws Cut 10 Times Faster than Hand Saws

Wards, Mall and Sunbeam

PRODUCTION TYPE MALL SAWS 59.95 TO 148.00

Portable electric saws are often called the "builder's saws." They have done much to cut time and cost in home-building. They are ten times faster than handsawing and more accurate. An average worker can keep 4 to 6 men busy nailing cut material in place. Highly versatile . . . can handle almost all sawing operations the home builder might need. Ideal for on-the-spot sawing of material that cannot be carried to the bench saw, etc. The most practical tool to use for cutting large sheets of plywood. The time and labor you can save in completing an unfinished attic, playroom or in adding a porch more than earns its relatively low initial cost.

Modern engineering developments have added even more to the versatility of the electric saw. Illustrations above show (1) accurate bevel cutting up to 45°; (2) use of depth-of-cut adjustment; (3) overhead cutting; (4) cutting corrugated roofing with special cutoff wheel; (5) pocket cutting (starting cut in center of board); (6) cutting concrete block with cut-off wheel.

POINTS TO CONSIDER CAREFULLY BEFORE BUYING YOUR SAW. The size and capacity saw you select depends on the type and thickness of materials it will be required to cut, and the sustained periods of operation over which it will be in use. Ball bearing construction permits free, smooth operation of the saw over prolonged periods, provides coolest operating temperature, and is best suited for production use and professional operation. Self-lubricating porous bronze bearings provide excellent service when used for intermittent or home workshop use. A 4-in. saw makes a good "scaffold saw"—one used on scaffold or ladder for occasional quick cuts. The light weight and compactness reduce arm fatigue and permit one hand operation for cutting sheathing, overhead cutting, inside finish work, etc., or ordinary cutting of materials not over 1 in. thick.

A 6-in. saw will do a good job on 2-in. lumber if frequent 45° cuts are not required. It is ideally suited for the hobbyist or home craftsman whose work most frequently involves 2-in. and smaller material. 7-in. saws make good general purpose tools to handle many jobs where the light weight of the small saws and the large capacity of larger saws are desirable. Because they can make one-cut miter and bevel cuts on 2-in. stock, the 8½-in. saw is in biggest demand for the home builder. Aside from being more powerful and having over a full inch greater capacity than a 6-in. saw, the 8½-in. saw has more teeth to the blade and therefore stays sharp longer and produces an even smoother and straighter cut.

The average portable electric saw has a high speed AC-DC motor; geared down to 3000 to 6000 RPM; a frame and handle; arbor; shoe and guard at top and one that retracts or swings at the bottom. Most saws are equipped with combination blades for rip or crosscutting. A trigger switch should be on the saw to cut off power the instant finger pressure is removed. When an electric saw must be used in a damp place, outdoors or on green stock, it should be equipped with a ground wire jack.

SIMPLE TO USE, NO SPECIAL SKILL REQUIRED. The portable electric saw is used in much the same way that you would use a carpenter's hand saw. Most of the fundamental principles apply. The saw is held in one hand and the work supported by the free hand (except in cases where the work is secured, when it is permissible and desirable to guide the saw with both hands). The forearm should be kept in a straight line with the blade. Let the blade cut its way into the material under normal guidance and feeding. Light, steady pressure is all that is needed to advance the saw for accurate and rapid work.

Ⓐ Ⓑ Ⓒ HEAVY-DUTY MODELS. Designed to meet professional specifications of carpenters, builders and contractors. For all types of continuous production jobs. Adequate capacity for sheathing, house framing, form work, etc. Operate smoothly, quietly on grease sealed, precision ball bearings. Accurately meshed helical cut gears are sealed in grease chamber. Blower cools motor and keeps cutting line free from sawdust. Well balanced loop handle and trigger switch for right or left-hand control. Die-cast aluminum housings are lightweight but strong enough to withstand the hardest use on the toughest jobs. Automatic telescoping blade guards. Powerful universal-type motors for 110–120 volts AC-DC. UL Approved (Industrial Standards). With 15-ft. 3-wire cord, plug; wrench; combination rip-crosscut blade.

Ⓐ 8½-IN. MALL SAW. Maximum cut at 90° is 2⅞ in. Bevel adjustment allows cuts up to 45°. See below for complete specifications. Metal carrying case and saw lubricant included. Shipped promptly from Chicago Factory.
84 KRP 8954 K—*Mailed Postpaid.* Only $15 Down. . . . . Cash $148.00

Ⓑ 7¼-IN. MALL SAW. Maximum cut at 90° is 2¼ in. Bevel adjustment for making cuts up to 45°. See below for complete specifications. Metal carrying case and saw lubricant included. Shipped promptly from Chicago Factory.
84 KRP 8953 K—*Mailed Postpaid.* Only $12.50 Down. . . . . Cash $125.00

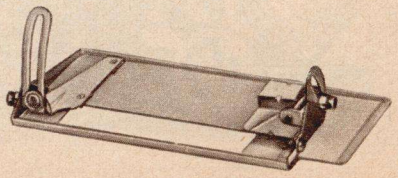
Ⓒ 6-IN. MALL SAW. Maximum cut at 90° is 2 in. Bevel cuts can be made with bevel shoe attachment listed separately at bottom of page. Without carrying case. See complete specifications below. Shipped promptly from Stock.
84 KRP 8950 M—*Mailed Postpaid.* Only $6 Down. . . . . Cash $59.95

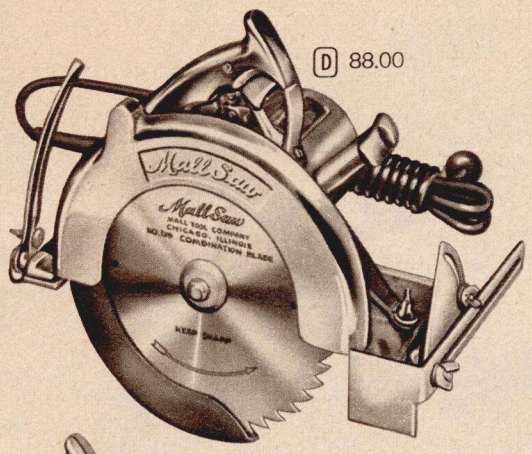
PORTABLE ELECTRIC SAW SPECIFICATIONS

Saw	Blade Diam., In.	Max. Cut at 90°	Min. Cut at 90°	Max. Cut at 45°	Arbor Hole, In.	No load RPM	Full load RPM	Rated HP	Actual Weight Lbs.
(A)	8½	2⅞ in.	13/16 in.	2 5/16 in.	13/16 sq.	4200	2500	1½	18
(B)	7¼	2¼ in.	13/16 in.	2 in.	13/16 sq.	4800	3400	1	16
(C)	6	2 in.	15/16 in.	1 11/32 in.	½ sq.	5000	3400	¾	8¾
(D)	8½	3 in.	1 1/16 in.	1⅞ in.	13/16 sq.	4500	2700	1	16
(E)(F)	7	2⅜ in.	½ in.	2 in.	½ sq.	5000	3400	¾	8¾
(G)	6½	2¼ in.	0 in.	1⅞ in.	½ rd.	4800	2800	¾	10½
(H)	6½	2⅛ in.	0 in.	1¾ in.	Spec.	6000	3800	1¼	10¼
(L)*	8¼	2 13/16 in.	0 in.	2 1/16 in.	1⅜ rd.	4500	2700	1⅓	14⅜
(M)*	7⅜	2 7/16 in.	⅛ in.	1¾ in.	1⅛ rd.	4200	2500	1	10¾
(N)*	6⅛	2 1/16 in.	0 in.	1 5/16 in.	1⅛ rd.	5500	3300	¾	9½

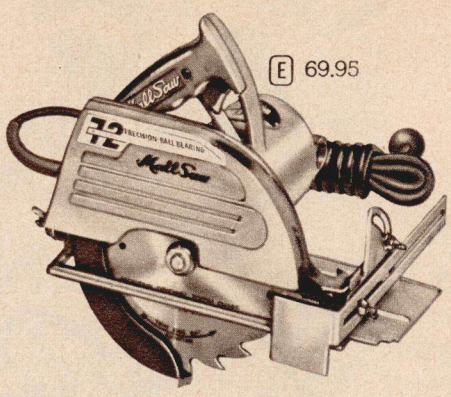
(*) Saws with asterisk are listed on Page 50.

BEVEL SHOE ATTACHMENT. Shown at right. Quickly attaches to saw (C) for making angle cuts. Maximum cut at 45° is 1 11/16 in. With shoe attached, depth of cut at 90° adjusts from 1 1/32 to 1 31/32 in.
84 KRP 8951—*Postpaid.* . $7.00

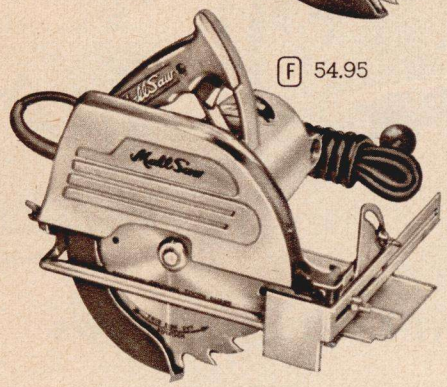




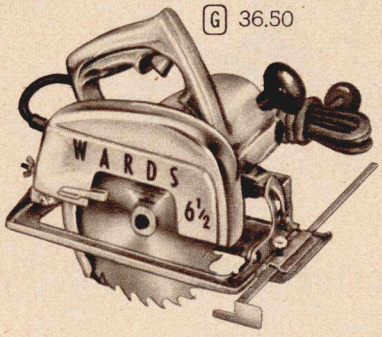
(D) 88.00



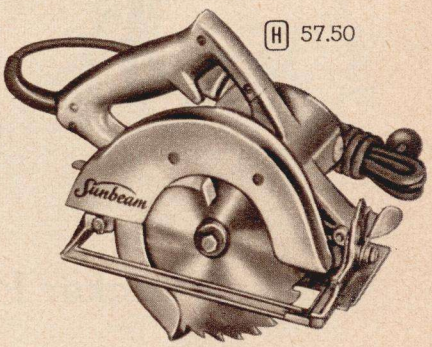
(E) 69.95



(F) 54.95



(G) 36.50



(H) 57.50

Portable Electric Saws Save Time, Labor . . . Only 10% Down

MEDIUM-DUTY MALL SAWS 54.95 TO 88.00

(D) MALL 8½-IN. BALL BEARING MODEL. Large capacity saw with grease-sealed precision ball bearings for long life and dependable service. Handles all types of work except continuous production use. More than adequate capacity for most cuts needed by builder or carpenter—cuts up to 3 1/16 in. at 90°—to 1⅞ in. at 45°. Enclosed helical cut gears in grease-sealed chamber. Propeller-type cooling system with blower fan. Heavy-duty trigger switch in easy-grip handle. Die-cast aluminum housing is lightweight but strong—balanced for ease of control. Telescoping blade guard for added safety. Bevel and depth of cut are easily adjusted. Powerful 1-HP 110-120 volt AC-DC motor. UL Approved (Industrial Standards). With 10-ft. 3-wire rubber cord and plug, wrench and 8½-in. combination rip-crosscut blade. For complete specifications see opposite page. Details of Credit Terms on Page 32.

84 KRP 8956 M—*Mailed Postpaid.* Only $9 Down on Terms.....Cash $88.00

84 KR 8916 M—STEEL CARRYING CASE for (D). Ship. wt. 15 lbs..... 5.98

(E) MALL 7-IN. BALL BEARING MODEL. Especially designed for the home builder or handyman. For straight, rafter and bevel cuts, house framing, etc. Easily cuts 2-in. lumber even at a 45° bevel. Full ball bearing construction—can handle all jobs except continuous production work. Big ¾-HP 110–120 volt AC-DC motor. UL Approved (Industrial Standards). Helical-cut gears in grease sealed chamber. Heavy-duty trigger-switch on comfortable handle. Die-cast aluminum alloy housing, lightweight without sacrificing strength. Telescoping blade guard, forced air cooling. 10-ft. 3-wire cord and plug, 7-in. rip-crosscut blade. Bevel adjustment calibrated at 15°, 30° and 45°. See table on facing page for complete specs. Case listed below (F).

84 KRP 8962 M—*Mailed Postpaid.* $7 Down on Terms.....Cash $69.95

(F) MALL 7-IN. UTILITY MODEL. An excellent saw for home workshop use and light carpentry. Cuts 2-in. lumber at 45° bevel. Precision ball and oilite bearing construction. Big ¾-HP motor for 110–120 volts AC-DC. UL Approved (Industrial Standards). Helical-cut gears. Die-cast aluminum alloy housing. Telescoping blade guard, forced air cooling. Heavy-duty trigger-switch on easy-grip handle. 10-ft. 3-wire cord and plug, 7-in. rip-crosscut blade. Bevel adjustment calibrated at 15°, 30° and 45°. See table on facing page for complete specifications.

84 KRP 8952 M—*Mailed Postpaid.* $5.50 Down on Terms.....Cash $54.95

84 KR 8917 M—STEEL CASE for Saws (E) and (F). Ship. wt. 11 lbs..... 5.25

NEW 6½-IN. "SLIP-CLUTCH" SAW 36.50

(G) WARDS POWR-KRAFT 6½-IN. "SLIP-CLUTCH" SAW. Big 6½-in. blade gives you a saw with capacity of most 7-in. saws. Easily cuts 2-in. rough lumber even at 45° bevels. Revolutionary "SLIP-CLUTCH" allows blade to stall under overload while motor continues at full speed, virtually eliminates gear damage and motor burn outs. Prevents dangerous kick backs caused by jamming saw. Designed for intermittent duty in home workshop or light carpentry use. Powerful ¾-HP motor has ball bearing on commutator, self-lubricating bearings elsewhere. Helical-cut gears. Lightweight die-cast aluminum alloy housing. Depth of cut adjusts 0 to 2¼ in. vertically; 1⅞ in. at 45°. Bevel adjustment calibrated at 15°, 30°, 45°. Adjustable rip guide. Propeller-type blower keeps motor cool, clears cutting line of sawdust. With 6½-in. combination rip-crosscut blade, wrench. 10-ft. 3-wire cord. UL Approved (Industrial Standards). For 110–120 volts AC-DC. For specifications see table on opposite page ..... *Available after Jan. 1.*

84 KR 8937—Ship. wt. 13 lbs. Only $4 Down on Terms.....Cash $36.50

NEW SUNBEAM PORTABLE ELECTRIC SAW 57.50

(H) SUNBEAM 6½-IN. MODEL. Made by Sunbeam, manufacturers of nationally known "Mixmaster" and other home appliances. Handles any cutting job performed by 7-in. saws. Will cut up to 2⅛ in. Easily handles 2-in. dressed lumber even at 45°. Big 1¼-HP motor gives more power than other saws this size, has greater torque for sustained cutting. Smooth running sleeve and needle bearings; precision ball bearing on armature; heavy-duty switch on loop handle. Balanced for greater ease of control. Die-cast aluminum alloy housing. Forced air cooling. Easily visible guide in shoe insures accurate cuts. Bevel and depth of cut easily adjusted. Complete with 6½-inch combination rip-crosscut blade, wrench, 7-foot rubber-covered cord and plug has third wire for ground. UL Approved (Industrial Standards). Shipped from Stock in Chicago and Baltimore. Order from your regular Mail Order House. See Page 32 for convenient Credit Terms.

84 KRP 8922 MT—*Postpaid.* Only $6 Down on Terms.....Cash $57.50

SEE PAGE 50 FOR BLACK & DECKER SAWS AND BLADES FOR ALL SAWS.

HINTS FOR USING PORTABLE ELECTRIC SAW

The same precautions that are necessary in hand sawing also hold true when using a power saw.

Keep blade sharp, a dull blade can overwork motor, shortening saw life. Order an extra blade; in this way you can keep a sharpened blade on hand at all times and change blades without taking time for sharpening.

Power saw cuts should be made on "waste" side of line being sawed. The kerf of a power saw is about twice the thickness of blade and must be considered when measuring off cuts. To insure good work take accurate measurements, consider the grain, direction of cut and condition of the wood before you cut it.

RUBBER-COVERED EXTENSION CORDS

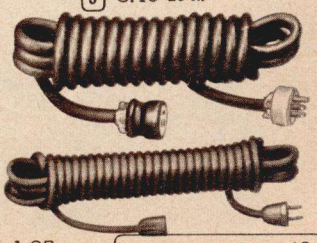
(J) (K) Use proper extension cord to insure getting plenty of power to saws operated at a distance from source of electricity. UL approved.

(J) 3-WIRE CORDS. Meet the new code requirements for grounding of power tools.

15-FOOT. 16-gauge, 3-wire cord with plug, outlet.
83 KR 1279 L—Ship. wt. 1 lb. 8 oz.....$3.45

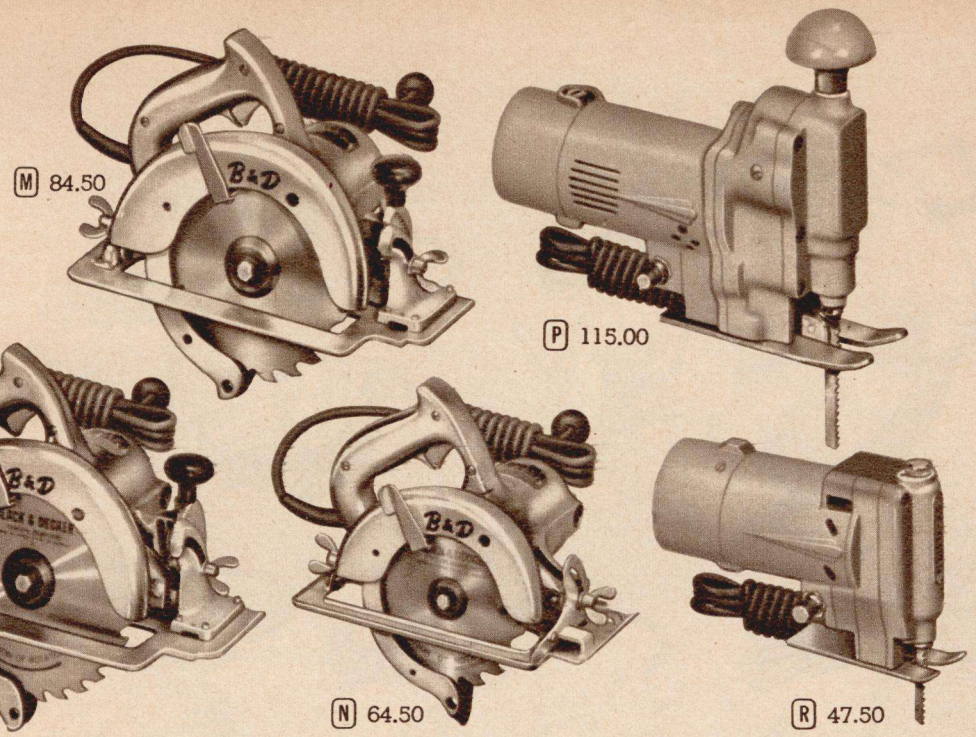
25-FOOT. 14-Gauge, 3-wire cord with plug, outlet.
83 KR 1270 L—Ship. wt. 5 lbs.....$8.45

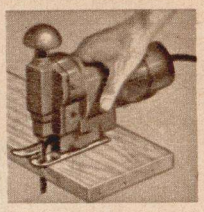
(K) 25-FOOT. 16-gauge, 2-Wire Cord with plug outlet.
83 KR 1271 L—Ship. wt. 2 lbs.....$1.95



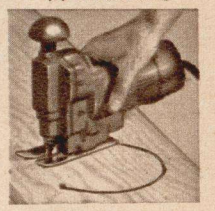
(J) 8.45 25-ft.

(K) 1.95 25-ft.

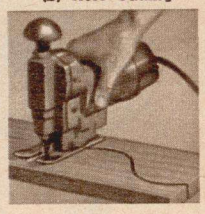




(a) Crosscutting



(b) Hole Cutting



(c) Pattern Making

Black & Decker Portable Saws . . . Powr-Kraft Saber Saws

BLACK AND DECKER SAWS 64.50 TO 96.50

L TO N HEAVY-DUTY MODELS. Designed for all 'round use; rugged enough for production work. Operate smoothly and quietly on full-size self-lubricating ball bearings. Tough alloy steel gears heat-treated and hardened. Blade guard designed so blade is seen from either side; fan keeps cutting line free of sawdust. Efficient propeller-type cooling system. Handles easily; trigger switch gives instant starting. Has light-weight but strong die-cast aluminum housing. Automatic telescoping blade guard with retracting handle. 110–120-volt, 60-cycle AC-DC. UL approved (Industrial standards). With rubber-covered 3-wire cord; plug. Bevels to 45°. See Page 48 for table of specifications. *Mailed Postpaid* promptly from Stock in Chicago, Baltimore or Oakland. Order from nearest Mail Order House.

(L) 8-IN. MODEL with 8¼-in. crosscut-rip blade.
84 KRP 8976 MT—*Postpaid*. $10 Down.....Cash $96.50

(M) 7-IN. MODEL. Includes 7⅜-in. crosscut-rip blade.
84 KRP 8977 MT—*Postpaid*. $8.50 Down.....Cash $84.50

(N) 6-IN. MODEL. Includes 6⅛-in. crosscut-rip blade.
84 KRP 8975 MT—*Postpaid*. $6.50 Down.....Cash $64.50

PORTABLE POWR-KRAFT SABER SAWS 47.50 AND 115.00

P R Powerful reciprocating type hand saws—can be used in three ways pictured above at right. Precision-built for close, accurate work. Swedish spring tempered steel saw blades will cut wood, plywood, plastic, bone and other materials. Sealed ball bearings in motors; operate on 110–120 volts, AC-DC. UL approved. Both saws are complete with 3 special Swedish steel blades, screwdriver, rubber-covered cord and plug, third wire for ground.

(P) HEAVY-DUTY SABER SAW. Designed for professional use. Does pattern making, cabinet work, etc. ⅛-HP ball-bearing motor. Precision ball and needle bearings. No-load speed of 14,000 RPM produces 2200 blade strokes per min. Cuts materials up to 2 in. thick. Push button switch. Does work of rip, crosscut, keyhole, coping, scroll and band saws. Actual weight 6¾ lbs.
84 KR 8901L—Ship. wt. 9 lbs. $11.50 Dn., Cash.$115.00

EXTRA BLADES FOR SAW (P). Swedish spring steel. Excellent for wood and plastics. Ship. wt. 1 oz.
84 KR 8903— 7 teeth per inch.....Each 75c
84 KR 8904—12 teeth per inch.....Each 75c

SPECIAL METAL-CUTTING SAW BLADE. Swedish steel.
84 KR 8905—Ship. wt. 2 oz.....Each $1.50
84 KR 8907—Saw oil for (P). Ship. wt. 4 oz.....75c

(R) LIGHT-DUTY SABER SAW. Extremely versatile—does ripping, coping, jig and scroll sawing, jointing, circle cutting, etc. Cuts wood, plastics, metals, fiberboard, etc., up to 1 in. thick. 1/10-HP ball bearing motor. Needle bearings in gear head; oilless bearings on shaft. 3250 strokes per min. Cuts ¼-in. radius turns. Push button switch. Actual weight 3½ lbs. Ship. wt. 5 lbs.
84 KR 8900—$5 Down, Cash $47.50

EXTRA BLADES FOR (R). Wt. 1 oz.
84 KR 8902—For wood. Each....50c
84 KR 8912—For metals. Each .$1.25
84 KR 8906—Oil for (R). Wt. 6 oz.50c

PORTABLE ELECTRIC SAW BLADES FOR POWR-KRAFT, MALL, SKIL, BLACK & DECKER, ETC.

T "SAFETY" COMBINATION 8-TOOTH SAW BLADES. Wards Master (Best) Quality. Safer from kickback, require less sharpening. *State diameter*.

U CARBIDE-TIPPED BLADES. Wards Master (Best) Quality. Stay sharp 25 times longer than ordinary blades. Tungsten carbide tips silver brazed to blade, diamond wheel ground to close tolerances. Cut transite, Formica, plastics, etc. *State diameter*.

*UNIVERSAL HOLES fit Thor, Skilsaw, Cummings, Wappat and all Mall saws except (C), (E), (F).

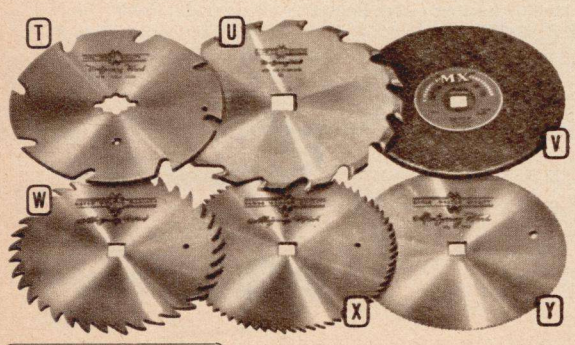
NOTE: All 6, 6¼-in. blades with ½-inch square holes fit Ward saws 84-8926 and 84-8927.

V CARBORUNDUM "MX" CUT-OFF WHEEL. Silicon carbide abrasive for quick cutting of non-metallics such as brick, tile, etc. Wheels are cloth reinforced. 3/32 in. thick.

W COMBINATION SAW BLADES. Wards Master (Best) Quality. Crosscut-rip-miter. Flat ground, heat-treated and tempered steel, hand-filed and set. Blades for Black & Decker, Porter-Cable and Skilsaws are *mailed* promptly from Factory near Buffalo, N.Y. Pay postage from there. Others *mailed* from Stock.

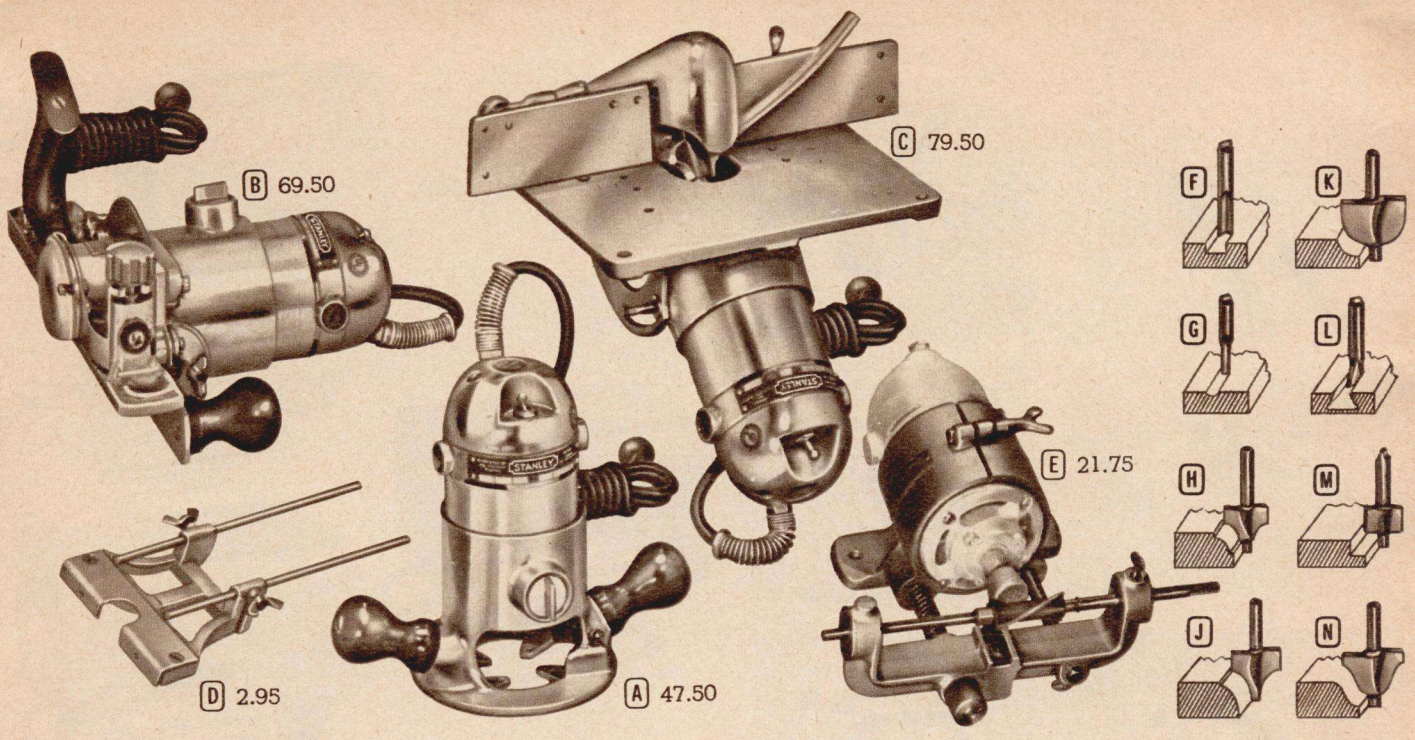
X NAIL-CUTTING SAW BLADES. Wards Master (Best) Quality. For cutting lumber having occasional imbedded nails. Heat-treated steel, hand-filed and set. *State diam. Mailed* promptly from Stock.

Y PLYWOOD BLADES. Have 180 finely set teeth—cut plywood, flooring, wallboard without splintering. *State diam. Mailed* from Stock.



SAW BLADES BELOW ARE FOR SAWS ON PAGES 48, 49 AND 50.

Catalog No.	Diam.	Hole, Inch	Fits Saws	Ship. wt.	Each
T 84 KR 6967 L	6 in.	½ sq.	(C), (E), (F)	1 lb.	$1.59
	7¼ in.	Universal	See *	1 lb.	1.79
	8 in.	Universal	See *	1 lb.	1.89
U 84 KR 6963 L	6 in.	½ sq.	(C), (E), (F)	1 lb.	8.45
	8 in.	13/16 sq.	(A), (D)	1 lb.	9.45
U 84 KR 6964 L	6 in.	Universal	See *	1 lb.	6.95
	7 in.	Universal	See *	1 lb.	7.45
	8 in.	Universal	See *	1 lb.	7.95
V 84 KRP 5244	6 in.	½ sq.	(C), (E), (F)	*Postpaid*	1.83
	7 in.	½ sq.	(E), (F)	*Postpaid*	2.40
	7 in.	13/16 sq.	(B)	*Postpaid*	2.40
	8 in.	13/16 sq.	(A), (D)	*Postpaid*	3.06
W 84 KR 6968 L	6 in.	½ sq.	(C), (E), (F)	1 lb.	1.59
	6¼ in.	½ sq.	(E), (F)	1 lb.	1.59
	6½ in.	½ rd.	(G)	12 oz.	1.59
	7 in.	½ sq.	(E), (F)	1½ lbs.	1.79
	7¼ in.	13/16 sq.	(B)	1½ lbs.	1.79
	8½ in.	13/16 sq.	(A), (D)	2 lbs.	1.89
W 84 KR 6971 K	6⅛ in.	1⅛ rd.	(N)	1 lb.	1.75
	7⅜ in.	1⅛ rd.	(M)	1½ lbs.	1.98
	8¼ in.	1⅜ rd.	(L)	2 lbs.	2.59
W 84 KR 6973 K	5⅞ in.	Diamond	Skilsaw	1 lb.	1.85
	6 in.	Diamond	Skilsaw	1 lb.	1.89
	7¼ in.	Diamond	Skilsaw	1 lb.	1.98
	8¼ in.	Diamond	Skilsaw	1 lb.	2.35
X 84 KR 6970 L	6 in.	½ sq.	(C), (E), (F)	8 oz.	1.98
	6¼ in.	½ sq.	(E), (F)	8 oz.	1.98
	6½ in.	½ rd.	(G)	12 oz.	1.98
	7 in.	½ sq.	(E), (F)	12 oz.	2.29
	7¼ in.	13/16 sq.	(B)	1 lb.	2.29
	8½ in.	13/16 sq.	(A), (D)	1 lb.	2.98
Y 84 KR 6969 L	6 in.	½ sq.	(C), (E), (F)	12 oz.	1.59
	6¼ in.	½ sq.	(E), (F)	12 oz.	1.69



Nationally Known Stanley Router and Planer

ONLY ONE MOTOR NEEDED TO POWER ROUTER, PLANER OR SHAPER ... 47.50 TO 79.50

A TO C Now you can buy one major tool and use it interchangeably as a router, planer or shaper by merely buying separate attachments listed below—no costly duplication of power plant; one motor operates them all. Powerful ½-HP motor unit runs at 18,000 RPM on sealed ball bearings. Threaded motor housing for easy assembly and depth of cut adjustment of each attachment. For 110–120-volt AC or DC. *Mailed Postpaid.* See "Shipping Notice" at bottom of page.

(A) STANLEY ½-HP ROUTER. Lightweight, precision-built unit for rabbetting, dadoing, doing templet work, etc. Makes smooth cuts with or against grain; use on wood or plastics. Push-button shaft lock simplifies removing chuck and changing bits. Quick-acting micrometer depth adjustment; depth adjusts 1/16 in. for each full turn of motor housing. Includes: chuck, ¼-in. straight bit, wrench.
84 KRP 8577 T—Router complete with ½-HP motor unit. $5 Down.....Cash $47.50

(B) STANLEY POWER PLANER. Perfect for builders and home handymen for planing dressed lumber, fitting storm windows, screens, etc. Leaves smooth waveless surface that needs no sanding. Unique design forces chips away from cutter and operator. Tilts both ways for angle planing. Includes plane arbor, 1 13/16-in. cutter blade, wrench. Length overall, 10¾ in.
84 KRP 8579 T—Planer complete with ½-HP motor unit. $7 Down.....Cash $69.50

(C) STANLEY BENCH SHAPER. Easily mounts in any table. High operating speed assures smooth cut without chatter. Motor tilts to 45°, can produce many different shape cuts with the same cutter—gives innumerable straight and irregular shapes in wood or plastics. Includes 5/16-in. arbor, fence and guard. Use with 5/16-in. bore shaper cutters listed on Page 25.
84 KRP 8581T—Bench Shaper complete with ½-HP motor unit. $8 Down.....Cash $79.50

STANLEY ATTACHMENTS ONLY (without motors). Easy to attach—easy to use.
84 KRP 8576 T—Router attachment. Converts (B) and (C) to Router.....$6.75
84 KRP 8578 T—Planer attachment. Converts (A) and (C) to Planer. $3.50 Down.....Cash 31.00
84 KRP 8580 T—Shaper attachment. Converts (A) and (B) to Shaper. $4 Down.....Cash 39.95

STANLEY ACCESSORIES 2.95 AND 21.75

D STRAIGHT AND CIRCULAR GAUGE. For Stanley Router (A)—maintains uniform distance between edge of material and router bit for accuracy. *Pspd.*
84 KRP 8595 T—See "Shipping Notice" below. $2.95

E NEW SHARPENER FOR STANLEY PLANER (B). Provides quick, efficient "on the job" sharpening of planer blade—gives keen, precision-ground edges in matter of minutes. Fits on *motor* of (A), (B) or (C). Complete with bevel cup grinding wheel, guide finger, instructions and wrenches. *Mailed Postpaid.*
84 KRP 8594 T–See "Shipping Notice" below. $21.75

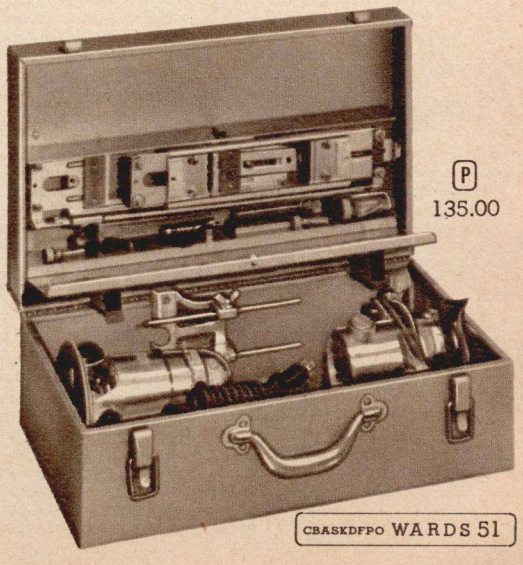
F TO N STANLEY ROUTER BITS. For Router (A) at left. High-speed steel, carefully ground and honed to assure fast, smooth cutting and long life. ¼-inch diameter shank. *Mailed Postpaid.*

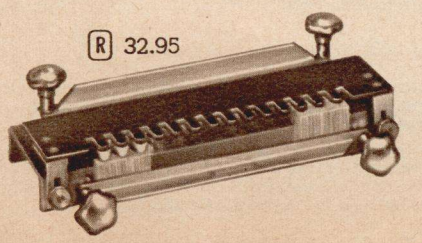
(F)	84 KRP 8585 T—¼-in. Straight Bit	$1.50
	⅜-in. Straight Bit	2.15
(G)	84 KRP 8586 T—⅛-in. Veining Bit	1.50
(H)	84 KRP 8587 T—⅜-in. Beading Bit	6.40
(J)	84 KRP 8588 T—½-in. Rounding Over Bit	5.25
(K)	84 KRP 8589 T—½-in. Cove Bit	6.90
(L)	84 KRP 8590 T—9/16-in. Dovetail Bit	4.65
(M)	84 KRP 8591 T—15/16-in. Rabbeting Bit	6.25
(N)	84 KRP 8592 T—¼-in. Roman Ogee Bit	7.25

STANLEY BUILDERS KIT FOR EASY DOOR HANGING 135.00

P Ideal outfit for contractors and builders for hanging doors and other routing and planing work. Efficient, saves time and labor. Combines Stanley ½-HP router and planer attachments plus specially designed templet for hinge mortising. New door and jamb butt templet is lightweight all-metal construction, quickly adjusted to mortise either 2 or 3 hinges on wooden doors and jambs. Can be used with doors from 1⅜ to 2 inches in thickness. Templet guides router so hinge mortises are cut to uniform size and depth. Motor unit can be quickly interchanged for use with either router or planer attachment. Special router sub-base provides hard, smooth surface that prevents wear and protects work surfaces from marring.

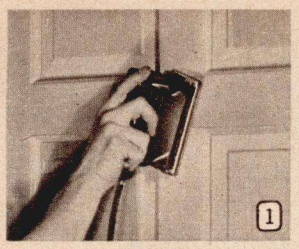
Kit includes: ½-HP motor unit (described at top of page); router attachment (A); planer attachment (B); door and jamb butt templet; special templet guide; arbor; two mortising bits; straight and circular cutting guide; router sub-base; and carrying case. Each piece fits compactly in distinctive fitted case with special racks to keep pieces in place when kit is being carried. Separate compartment holds templet, mortising bits, planer blade and other accessories. Total weight of complete outfit only 30 lbs. See Shipping Notice at bottom of page.
84 KRP 8582 MTB—Complete Builders Kit. *Mailed Postpaid.* $13.50 Down.....Cash $135.00

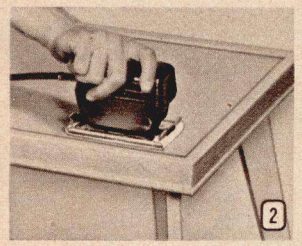


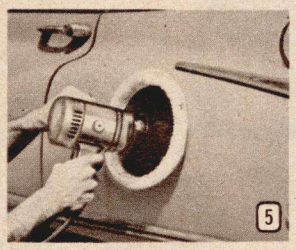


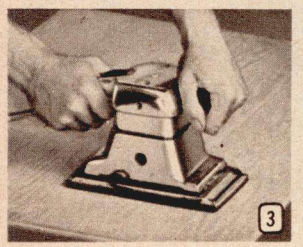
R DOVETAIL ATTACHMENT. Use with router (A) above. Quickly and easily cuts matching dovetail joints with one pass of router ... takes only 30 seconds to cut average joint. Handles stock to 12 in. wide, from 7/16 to 1 in. thick. Includes finger templet, dovetail bit, guide, subbase, instructions. $3.50 Dn.
84 KRP 8584 T—*Mailed Postpaid.* Cash..$32.95

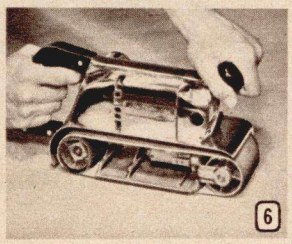
SHIPPING NOTICE. All the items listed on this page are shipped *Postpaid* promptly from Stock in Chicago, Baltimore and Oakland.

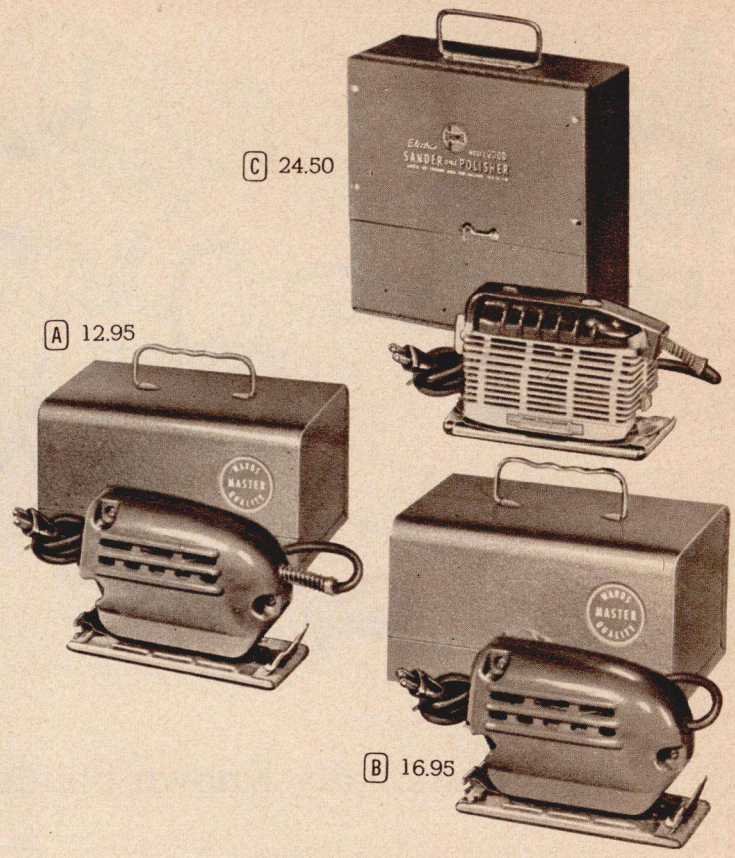












Portable Power Sanders

Speed Tedious Sanding Tasks

If you plan to put any kind of a finish on your woodworking or home improvement projects you'll have to do some sanding. The final result depends on how good a sanding job you do. Critical craftsmen know that sanding is an operation that cannot be rushed—it takes time. That's why hand sanding is sometimes thought of as a boresome, tiresome task.

Power Sanders will speed your work. You can save hours and hours of tedious hand labor—do the job in about 1/10 the time. And the consistent sanding motion of the power sander will also help give your work that fine professional appearance that makes the most simple job look finished. Sanders are usually classified according to the type of stroke produced.

MAGNETIC-VIBRATOR TYPE SANDERS produce quick, short strokes with either a straight-line or double-arc vibrating motion. They are especially designed for fine finishing work and are ideally suited for sanding between finishing coats of shellac or varnish. After the final coat is applied they can be used with soft pads for polishing and buffing on wood or metal. Units are not affected by dust and dirt—require very little care. All are extremely lightweight—easy to operate. View (1) above shows the Magnetic-Vibrator type sander in use, sanding a door. View (2) illustrates the same unit in operation as a polisher on small table. Use for waxing, buffing, etc.

ORBITAL OR OSCILLATING TYPE SANDERS duplicate the circular motion of hand-finishing. This unique motion is faster, more efficient than most straight-line* motions and permits use of the orbital sander for both finishing operations and fast removal of stock. They can also be used for polishing and buffing on either wood or metal. These features make the orbital sander ideal for all-around sanding utility in the home or woodworking shop. Sanders of this type are usually powered by rotary motors. View (3) shows the orbital sander removing imperfections on a sheet of plywood.

*For smoothest finishing, when sanding with the grain, a straight-line motion is best. However, this stroke is not quite as fast as others.

ROTARY SANDERS spin a sanding disc with powerful rotary action—giving fastest cutting motion nearest edge of disc. Fast action makes this type sander most efficient for heavy removal on wood or metal. Used extensively for automobile body work, including buffing operations. Can be easily adapted for use as a Power Drill with Jacobs chuck. Especially recommended for the workshop enthusiast who wants added versatility. Air-cooled universal type motors provide direct rotary power. View (4) shows sanding use on metal cabinet. View (5) shows buffing on auto-body.

BELT SANDERS have a continuous straight-line stroke that makes full contact with the sanded surface over a wide area. These characteristics help in adapting the belt sander to heavy removal work and in sanding surfaces that are large and more or less flat. Belt sanders are often used for sanding boat hulls, decks, floors and walls. Small belt sanders are very useful for minor sanding jobs on flat surfaces such as tables, window sills, floors, etc. Universal type electric motors with bearing constructed drive systems power the sanding belt. See View (6) which illustrates how the belt sander is used on table-sanding project. See Page 25 for listings of bench type Sanders powered by separate motors. For pads, bonnets, other sanding accessories, see Page 39. For complete information on Wards Monthly Payment Plan, refer to Page 32.

Nationally Known Portable

MAGNETIC-VIBRATOR SANDERS 12.95 TO 24.50

Wards offer a wide assortment of these finishing sanders. All are complete compact units capable of producing smooth finishes on all planed and prepared surfaces. Each has been designed for sanding and polishing operations in tight places, on flat, concave or irregular areas. They are used for finishing varnished wood surfaces such as on furniture, interior doors, window sills, and woodwork. Also excellent for smoothing minor patches on small spackled holes or plaster cracks. Sand with or across wood grains. Units require no lubrication or further service—pay no attention to any accumulation of dust—does not impair operation. You can also use these sanders as vibrating-massaging units. Busy motion is just right for relaxing tired muscles. All are light in weight and extremely easy to use—just flick handy on-off switches. Operate on 110–120 volt AC only. Select the size and model suited to your needs.

A POWR-KRAFT SANDER WITH CASE. 13¾-sq. in. sanding platen with straight-line motion and self-loading action—length of stroke increases with slight pressure. Full surface contact. Self-tightening clamp makes abrasive changing easy. Lightweight plastic body weighs only 2½ lbs. Complete with 6 sanding sheets (2½x7 1/16 in.), polishing cloth, cord and plug. UL Approved.

84 KR 8512—In compact metal case. Shipping weight 5 lbs. $12.95

84 KR 8513—Extra Sanding Sheets. Assorted grits. Wt. 8 oz. .... Pkg. of 12 for 20c

B NEW POWR-KRAFT SANDER WITH CASE. Over 19 sq. in. of sanding area. Self-loading straight-line action increases length of stroke when slight pressure is applied. New heavy-duty magnetic motor design gives added power for heavy sanding. Extra-heavy construction throughout for continuous use. Self-tightening clamp makes abrasive changing easier. With 15 Aluminum Oxide sanding sheets, 3⅛x7½ in. two polishing cloths. Rubber-covered cord and plug. In handy metal carrying case. UL Approved.

84 KR 8517—Shipping weight 6 lbs. $16.95

84 KR 8518—Extra Sanding Sheets. Assorted grits. Wt. 8 oz.. Pkg. of 12 for 29c

C DREMEL SANDER WITH CARRYING CASE. Big 21-sq. in. sanding platen covers larger area in even less time. Dremel straight-line motion assures even, scratch-free surface. Larger more powerful unit, built to withstand continuous use. Strong metal construction throughout—yet weighs only 5 lbs. Clip-spring abrasive clamp pulls sanding sheet up tight. With 25 sanding sheets (3x9-in.), rubber backing pad and sheepskin polisher. Rubber-covered cord and plug. In vertical-decked metal carrying case. UL Approved.

84 KRP 8516—*Mailed Postpaid.* $2.50 Down on Terms. ..... Cash $24.50

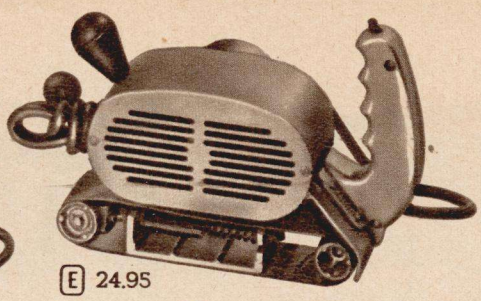
84 KR 8533—Extra Sanding Sheets. Assorted grits. Wt. 8 oz.... Pkg. of 12 for 39c

HINTS ON HOW TO REFINISH WOODS

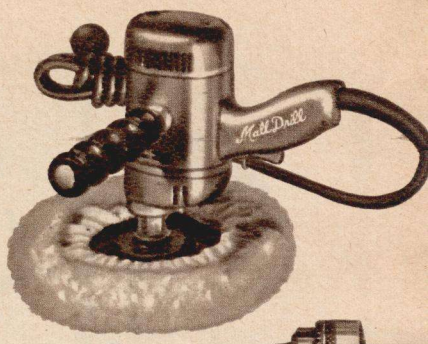
You can refinish old-fashioned walnut and mahogany pieces into the latest modern blond finishes. Sand down to bare wood, also taking off any unnecessary edging, fluting, etc. Then bleach wood to desired shade.

If you wish to emphasize the grain, rub a white lead into the wood to show a whitish tinge at edges, corners and in the grain. Lead may be tinted with lamp black to obtain a variety of shading. A protective layer of shellac or several coats of wax may be used to preserve graining.

D 79.50



E 24.95



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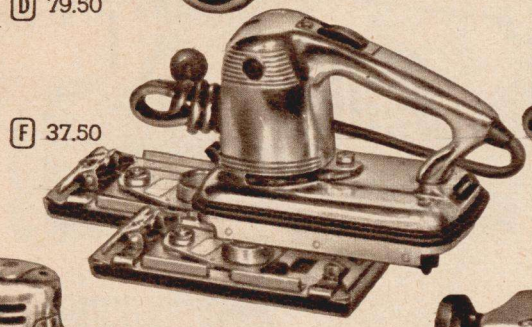

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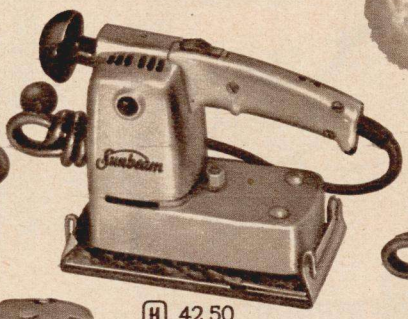

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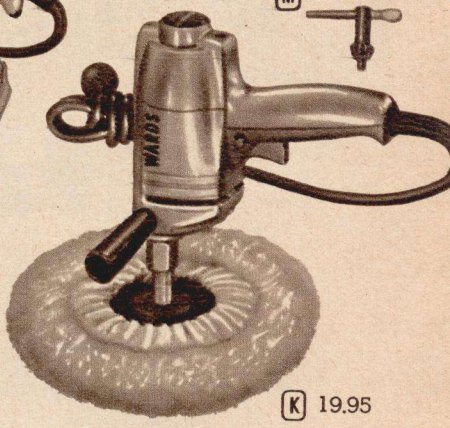
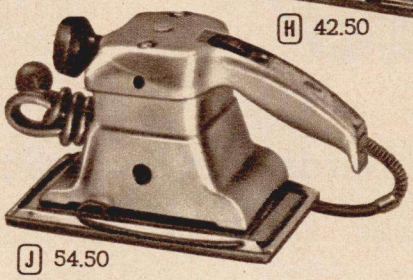


K 19.95

G 52.50



J 54.50

Electric Sanders for Every Type of Sanding Job

NATIONALLY KNOWN BELT SANDERS 24.95 AND 79.50

Two of the finest belt-sanders in their price field, designed to utilize proven double-drum construction feature with positive chain-drive power. Continuous straight line motion is effective for sanding tables, floors, boat decks, etc. Ten times faster than hand sanding. Both have die-cast aluminum alloy housings; fan-cooled rotary motors. Extra strong yet light weight enough for easy handling. UL Approved.

D MALL BELT SANDER. 3-in. wide belt. Powerful, big capacity unit for fast sanding removal on large surfaces. Sealed Ball Bearing construction for long service. Simple to operate—for use by home craftsmen, maintenance men, woodworking shops, etc. Self-lubricating bronze bearing drum construction. Belt is flush with right side of housing for close work. Coil spring maintains proper belt tension. Convenient trigger switch on handle. 3450 RPM motor operates on 110–120 volt AC or DC. With 3 assorted belts (3x24 in.), special lubricant.

84 KRP 8511M—*Postpaid.* $8 Down.....Cash $79.50

EXTRA SANDING BELTS. *State fine, medium, coarse.*

84 KR 8531—Ship. wt. 3 oz.....Each 35c

E BURGESS LIGHT-DUTY MODEL. 2-in. wide belt. Unusually low priced for this type sander. Easily operated—designed for home owner, hobbyist, craftsman. Ideal for sanding woodwork, tables, chairs, etc. Self-lubricated bronze bearings. Sanding belt is flush with left side of housing—sands right up to edges. Tempered coil spring keeps proper belt tension. Forced air cooling. Chain drive. Combination momentary contact or constant switch. Set-screw belt adjustment. Belts easy to change. 3400 RPM motor 110–120 volt, 60 cycle AC only. With 2 sanding belts (2x17½ in.).

84 KRP 8550—*Postpaid.* $2.50 Down.....Cash $24.95

EXTRA SANDING BELTS. *State fine, medium, coarse.*

84 KR 9350—Ship. wt. 2 oz.....Each 29c

NATIONALLY-KNOWN ORBITAL SANDERS 37.50 TO 54.50

Orbital Sanders produce beautiful finely finished work and give results superior to the best hand finishing in one-tenth of the time. The unique oscillating motion of the orbital-type sander is efficient on walls, doors, stairways, interior woodwork, cabinets, boat decks, etc. Recommended for refinishing old furniture—will leave no reversing points. These sanders are also designed for heavy removal work. Use with either wet or dry abrasives. All are UL Approved for 110–120 volts, AC or DC.

F DUAL PLATEN SANDER. 30-sq. in. sanding area. Two entirely different effective strokes for price of one. Interchangeable platens—convert from oscillating motion (for removal work) to straight-line motion (for finishing) on wood or metal. 5500 strokes per minute. Heavy-duty ball bearing construction. Lightweight die cast aluminum housing—weighs only 5 lbs. Slide switch on handle. Complete with 9 assorted sanding sheets (3⅔x9 in.) *Mailable.*

84 KR 8541M—Wt. 7 lbs. 8 oz. $4 Down....Cash $37.50

G BLACK AND DECKER SANDER. 30-sq. in. sanding area .4250 strokes per minute. Sanding shoe moves smoothly on grease-sealed ball bearings. Plate extends beyond body for close quarters work. Abrasive lock lets you change sanding sheets easily. Lock-on trigger switch. Auxiliary knob handle can be used at front or side position. Heavy-duty ball bearing motor. With 6 sanding sheets (3⅔x9 in.).

84 KRP 8508—*Postpaid.* $5.50 Down.....Cash $52.50

H NEW SUNBEAM SANDER. 33-sq. in. sanding area. Nationally known quality. Timing belt gives positive, silent power transmission. Self-aligning bronze and needle bearings. Operates at 4000 strokes per min. Slide switch. With 3 sanding sheets —fine, medium, coarse. Uses ⅓ sheet of standard 9x 11-in. sandpaper. Shipped from Chicago or Baltimore; order from your regular Mail Order House.

84 KRP 8522 T—*Postpaid.* $4.50 Down ..Cash $42.50

J NEW HEAVY-DUTY SPEEDWAY SANDER. 40 sq. in. of sanding area. Professional quality production model. 5500 strokes per minute. Combines larger platen, sturdy construction with lightweight cast aluminum body. Easy to handle—has extra work capacity, higher speed. All sealed and shielded ball bearings for smooth operation. Air-cooled motor. Slide switch. With one sanding sheet (4½ x 11 in.). Uses ½ sheet of standard 9 x 11-in. sandpaper.

84 KRP 8523—*Postpaid.* $5.50 Down....Cash $54.50

84 KR 8509—Ass'td. Abrasives for Sanders (F), (G) and (H) above. Ship. wt. 8 oz.....Pkg. of 12 for 49c

ROTARY SANDERS 19.95 TO 48.00

Powr-Kraft and Mall Sander-Polishers are ideal for heavy removal work and high-speed buffing operations. Used extensively for automobile body work by car-owners, garage men and small autoshops. Powerful —easily converted to power drills with chucks (see (M) listed below). Dozens of work-saving attachments are available. Highly versatile units, recommended for the car-owner, hobbyist and home-owner alike. All Sander-Polishers listed below have lightweight aluminum alloy housings, efficient helical cut spur gears accurately meshed for smooth, quiet operation. Air cooled motors and convenient lock-on trigger switches. For 110–120 volt, AC-DC.

K POWR-KRAFT 6-IN. SANDER-POLISHER. Especially designed for utility use by home craftsmen, car-owners, hobbyists. Self-lubricating bronze bearings, ball thrust on spindle. Free-load speed 1800 RPM. With rubber pad, sheepswool bonnet, 6 assorted sanding discs (6-in. diam.), auxiliary handle, cord and plug. UL Approved. *Mailable.* Ship. wt. 5 lbs.

84 KR 8505M—$2 Dn.....Cash $19.95

L MALL HEAVY-DUTY 7-IN. SANDER-POLISHER. Nationally known quality for production shops, etc. Has long wearing grease-sealed ball bearing construction for continuous use. Free-load speed 800 RPM. With rubber backing pad, sheepswool bonnet, 4 assorted sanding discs (7-in. diam.), palm-length auxiliary handle, plastic polish, cord, plug. UL Approved.

84 KRP 8500M—*Postpaid.* $5 Dn..Cash $48.00

ALUMINUM OXIDE SANDING DISCS FOR SANDERS ABOVE. *State Fine, Medium, Coarse or Extra-Coarse.*

84 KR 9347—6-in. diam. Wt. 6 oz...5 for 39c

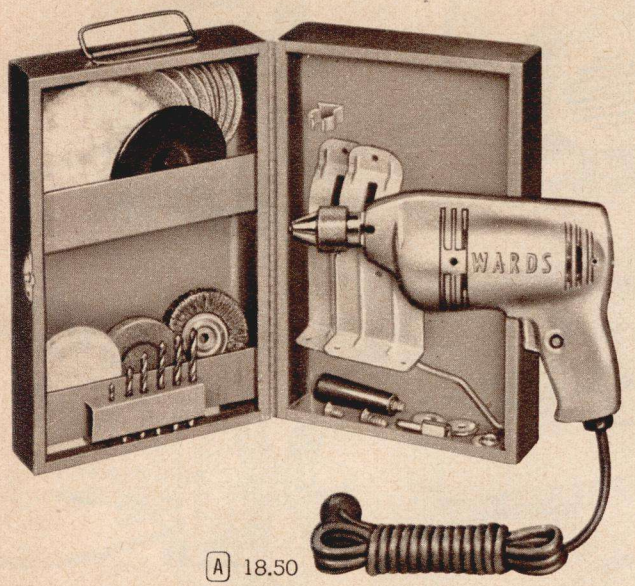
84 KR 8530—7-in. diam. Wt. 8 oz...5 for 59c

M GEARED CHUCKS. Convert sanders to Power Drills. ⅜x24 thread. With key.

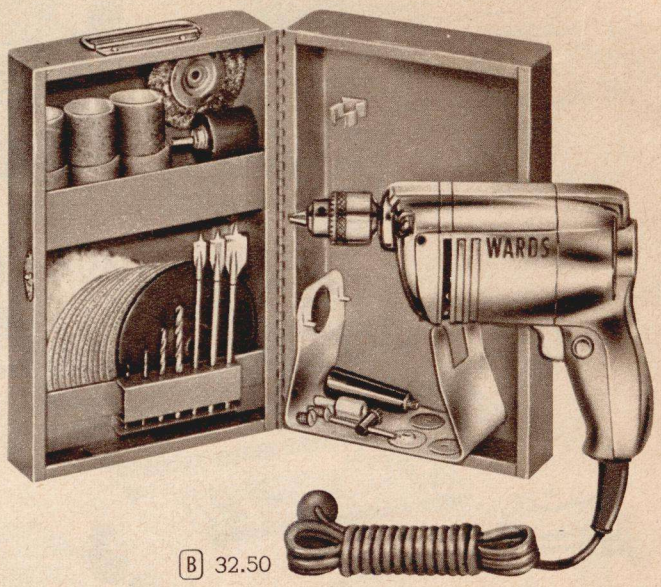
84 KR 9365—¼ in. for (K). Wt. 10 oz..$5.00

84 KR 9368—⅜ in. for (L). Wt. 12 oz.. 5.50

See sandpaper listings, Pg. 39.



A 18.50



B 32.50

Wards and Sunbeam ¼ and ½-Inch Electric

WARDS LIGHT DUTY ¼-INCH DRILL KIT 18.50

A 30 PIECE ¼-INCH POWR-KRAFT OUTFIT. Good quality, low priced kit for hobbyist, home craftsman or handyman. With it you can drill, sand, polish, buff, grind, even mix paint. Has many uses around home or shop. Kit comes in convenient metal box which stands upright on table or workbench or can be hung on wall—keeps drill and all accessories at your fingertips in the shop or when carried to the job.

¼-INCH LIGHT-DUTY DRILL. Guaranteed 1 year*. Streamlined modern design. Compact, lightweight, well balanced. For light, intermittent use around home or shop. Approved by Underwriters' Laboratories. Self-lubricating bronze sleeve bearings assure trouble-free service. Capacity ¼ inch in steel, ½ inch in hardwood. Heat treated alloy steel gears are accurately meshed. Hand-tite chuck. No load speed 1600 RPM, full load speed 1000 RPM. Forced air ventilation keeps drill cool. Die-cast, satin finish aluminum alloy housing is lightweight without sacrificing strength. Comfortable palm grip handle with trigger switch that locks for continuous operation. Reinforced rubber-covered cord and plug. For 110–120 volts AC-DC. Length overall of drill 8¼ in. Actual weight 3¼ lbs. (See Wards Guarantee on opposite Page.)

ACCESSORIES INCLUDE: Seven carbon steel bits—1/16, 3/32, 1/8, 5/32, 3/16, 7/32 and ¼-inch sizes for use on either wood or metals. 3⅞-in. diameter rubber backing pad holds 4½-in. sheepswool bonnet or sanding discs (12 assorted grit sanding discs included). 3-in. cloth buffing wheel, 2¾-in. abrasive wheel for grinding or sharpening; 3-in. wire wheel for removing rust, paint etc.; drill arbor assembly; paint mixer; auxiliary side handle for 2-hand operation. Metal carrying case holds drill and all accessories—has knockouts for mounting on wall.

84 KR 9265—Complete Kit. Ship. wt. 8 lbs. *Mailable*.....$18.50

SEE PAGES 56 AND 57 FOR OTHER DRILL ACCESSORIES TO ADD VERSATILITY TO YOUR DRILL OR DRILL KIT.

WARDS MEDIUM DUTY ¼-INCH DRILL KIT 32.50

B 34 PIECE ¼-INCH POWR-KRAFT OUTFIT. Better quality medium-duty drill kit for the handyman or professional. With this kit you can drill, sand, polish, etc. Kit comes in handy metal carrying case that stands upright on bench or hangs on wall. Holds drill and all accessories, keeps them together where you can always find them. Kit is available with either Spade-grip or Palm-grip drill.

¼-INCH MEDIUM-DUTY DRILL. Guaranteed 1 year*. A smooth handling, power packed drill. Designed for medium duty in home or shop. UL Approved (Industrial Standards). Ball and bronze bearing construction; ball bearings at points of greatest strain assure long, dependable service, self-lubricating bronze bearings at other points. Capacity ¼ in. in steel, ¾ in. in hardwood. Precision cut alloy steel gears for trouble-free operation. Professional type 3-jaw geared chuck with key. No load speed 1500 RPM, full load speed 900 RPM. Forced air ventilation. Satin finish die-cast aluminum alloy housing. Choose Palm-grip or Spade grip handles, both type handles have trigger switch that locks on for continuous running. Reinforced rubber-covered 3-wire cord and plug. For 110–120 volts AC-DC.

ACCESSORIES INCLUDE: Four high speed drill bits: 1/16, 3/16, 1/8, ¼-in. sizes for wood or metals. Three special wood-cutting power auger bits ⅜, ½ and ¾-in. sizes; 5-in. rubber backing pad for polishing and sanding jobs; 5½-in. lambswool polishing bonnet; twelve 5-in. sanding discs; drum sander with 6 assorted sanding sleeves; adapter set; wire wheel for removing rust, paint, etc. Bench stand lets you use drill with both hands free. Auxiliary side handle for two-hand drill operation. Handy metal case for storage and carrying drill and accessories. *Mailable*.

COMPLETE KIT WITH PALM-GRIP DRILL as shown above. Drill length 8¼ in.

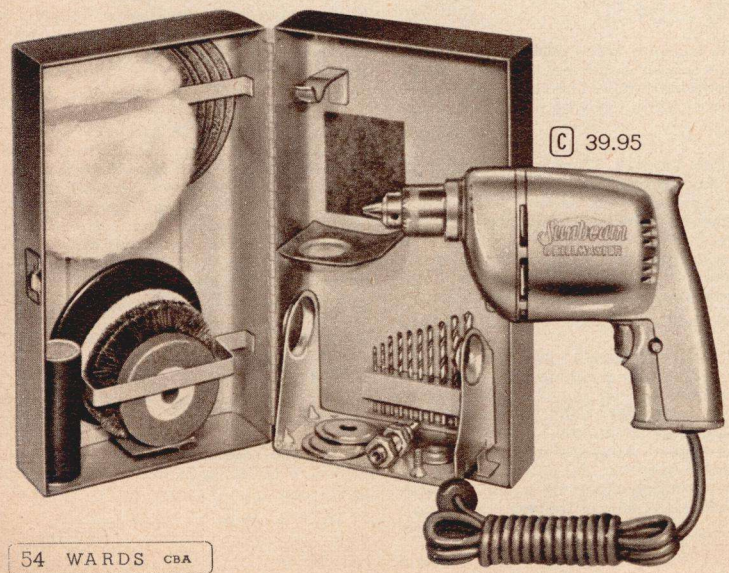
84 KR 9248 L—Ship. wt. 8½ lbs. $3.50 Down on Terms.....Cash $32.50

COMPLETE KIT WITH SPADE-GRIP DRILL. (Drill (D) on Page 58). Drill length 10¾ in.

84 KR 9259 L—Ship. wt. 8½ lbs. $3.50 Down on Terms.....Cash $32.50

KIT WITHOUT DRILL. Case and accessories described above but no drill.

84 KR 9258 L—Ship. wt. 4 lbs. 8 oz.....$11.95



C 39.95

SUNBEAM ¼-IN. DRILL KIT 39.95

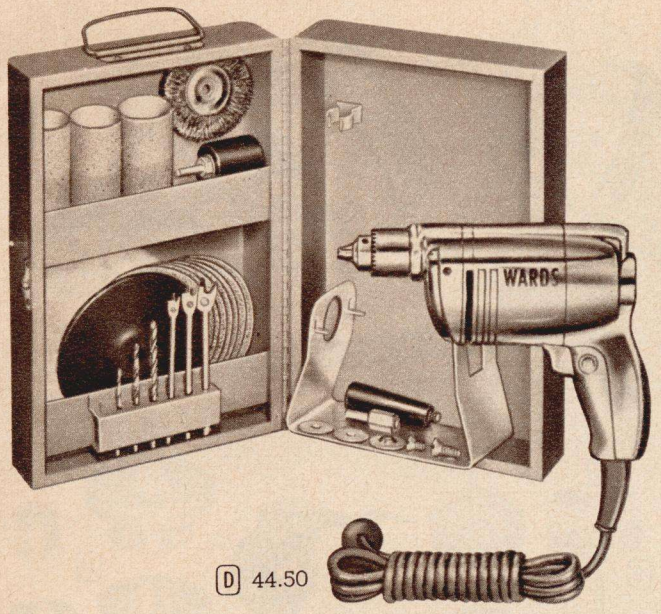
C 25-PIECE DRILLMASTER KIT. Manufactured by nationally known Sunbeam Electric Co. Handy kit for home, workshop or farm. Includes everything needed for drilling, sanding, polishing, buffing, grinding, etc. Comes in handy steel case, may be mounted on wall, easily removed to carry right to the job. Case holds drill and all accessories, saves space, keeps tools in order.

POWERFUL ¼-IN. DRILL. Ball bearing on spindle, oilless bronze bearings elsewhere. UL Approved. Higher torque allows faster drilling, greater sustaining power for tough jobs. Capacity ¼ in. in steel, ½ in. in hardwood. Jacobs ¼-in. geared chuck. No load speed 2200 RPM, full load speed 1100 RPM. Air intake vents in base and side for cooler operation, greater comfort. Well balanced motor makes drill easy to handle. Die-cast aluminum alloy housing. For 110–120 volts AC-DC. Drill length 7¾ in. Actual weight 4 lbs. 8 oz.

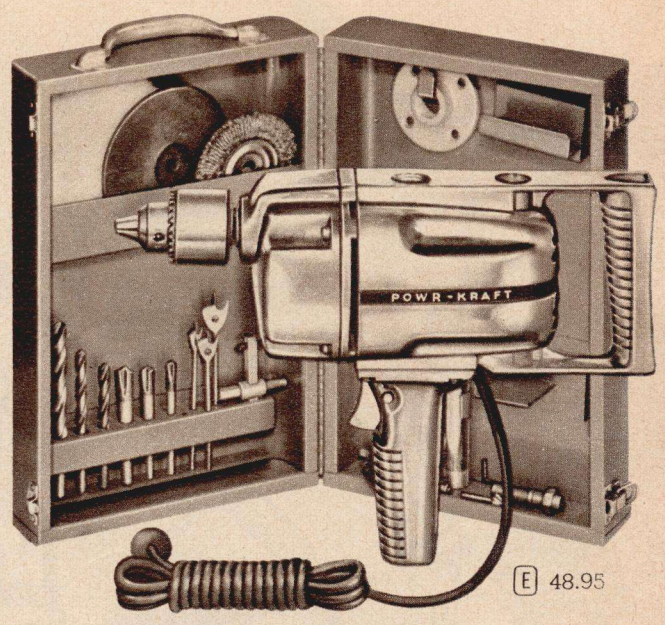
ACCESSORIES INCLUDE: Ten high speed tool steel drills: 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, ¼-in. sizes—use for both wood and metals; 5-in. rubber backing pad for sanding and polishing; 5½-in. wool polishing bonnet; six 5-in. sanding discs (3 medium grit, 3 fine grit); arbor assembly; 3-in. abrasive wheel for grinding and sharpening; 3-in. buffing wheel; 4-in. wire wheel removes paint, rust, etc. Bench stand allows use of drill with both hands free. Handy metal carrying case holds drill and all accessories. *Mailed Postpaid* from Chicago or Baltimore, order from your regular Mail Order House.

84 KRP 9387 MT—COMPLETE KIT. Only $4 Down on Terms. Cash $39.95

SEE PAGE 32 FOR DETAILS OF WARDS MONTHLY PAYMENT PLAN.



(D) 44.50



(E) 48.95

Drill Kits . . . For Home, Shop or Production Use

WARDS HEAVY DUTY ¼-INCH DRILL KIT 44.50

(D) 34 PIECE POWR-KRAFT PRODUCTION MODEL. Our best quality, heavy-duty ¼-in. drill kit. Perfect for the handyman or professional who needs a drill for heavy-duty or continuous production work. Includes everything needed for drilling, sanding, buffing, polishing, grinding, etc. Kit is contained in handy metal carrying case that hangs on wall or stands up on bench or table. Holds drill and all accessories, keeps them at your fingertips. Kit is available with either Palm-grip or Spade-grip handle on drills.

¼-INCH HEAVY DUTY DRILL. Guaranteed 1 year*. Built to stand up under rough continuous production or workshop use. UL Approved (Industrial Standards). Full, grease-sealed ball bearing construction insures trouble-free operation under hardest use. Meets Government Specifications WD-661, Navy 40T3 and Mil-855. Capacity ⅜ in. in steel, 1 in. in hardwood. Industrial type 3-jaw geared chuck with key. Smooth working alloy steel gears. No load speed 1800 RPM, full load speed 1200 RPM. Forced air ventilation prevents overheating. Your choice of Palm-grip or Spade grip handles, both have trigger switch that locks on for continuous operation. With 10-foot reinforced, rubber covered 3-wire cord and plug. For 110–120 volts AC-DC.

ACCESSORIES INCLUDE: Four high speed drill bits 1/16, 3/16, ⅛, ¼ inch sizes for wood or metals; three special wood-cutting power auger bits: ⅜, ½ and ¾-in. sizes; 5-in. rubber backing pad for polishing and sanding jobs; 5½-in. lambswool polishing bonnet; twelve 5-in. sanding discs; drum sander with 6 sanding sleeves; adapter set; wire wheel for removing rust, paint, etc. Horizontal bench stand lets you use drill with both hands free. Auxiliary side handle for two-hand drill operation. Handy metal case for storage and carrying drill and all accessories. *Mailable.*

COMPLETE KIT WITH PALM-GRIP DRILL. (Shown above.) Drill length 8 in.
84 KR 9260 L—Ship. wt. 8 lbs. 8 oz. $4.50 Down on Terms.....Cash $44.50

KIT WITH SPADE-GRIP DRILL. (Drill (F) pictured on Page 58.) Drill length 10¾ in.
84 KR 9261 L—Ship. wt. 8 lbs. 8 oz. $4.50 Down on Terms.....Cash $44.50

WARDS HEAVY DUTY ½-INCH DRILL KIT 48.95

(E) 20 PIECE POWR-KRAFT PRODUCTION MODEL. Big capacity model, especially made for heavy construction, repair, maintenance work. Drills, polishes, buffs, brushes, etc. Includes special drills for wood, metal and masonry. Metal chest holds all accessories, stands upright on bench or table or may be hung on wall—keeps drill and accessories together, saves space.

½-INCH HEAVY-DUTY DRILL. Guaranteed 1 Year*. UL Approved (Industrial Standards). Self-lubricating bronze bearings with ball thrust bearings on chuck spindle. ⅝-in. capacity in steel; 1 in. in hardwood. Precision cut, accurately meshed, spur gears of hardened alloy steel, for smooth, quiet operation. Professional quality 3-jaw geared chuck with key. No load speed 450 RPM, full load speed 300 RPM. Motor cooled by forced air ventilation. Drill housing of lightweight aluminum alloy, mirror finish. Upper handle removable for close corner drilling; lower handle perfectly balanced: rear handle for straight down drilling or carrying. Cutler-Hammer trigger switch locks on for continuous running, releases instantly. Reinforced, rubber covered 3-wire cord and plug. For 110–120 volts 25–60 cycle AC-DC.

ACCESSORIES INCLUDE: Three high speed steel drill bits for wood or metal, ¼, ⅜, ½-in. sizes; three wood auger bits: ½, ¾, 1-in. size; three carbide-tipped masonry drills: ¼, ⅜, ½-in. sizes; 4¾-in. flexible rubber backing pad for sanding and polishing; lambswool polishing bonnet; hole cutter attachment; countersink; spindle adapter; 4-in. wire wheel for removing rust, paint, etc.; horizontal drill stand; Allen wrench; metal carrying case holds drill and all accessories. *Mailable.* Ship. wt. 23 lbs.

84 KR 9249 MB—Complete Kit. $5 Down on Terms.....Cash $48.95

WARDS POWR-KRAFT DRILL GUARANTEE*

GUARANTEE: If any Wards Powr-Kraft drill listed on these two pages shows any defects in materials or workmanship under normal use, we will repair it at no charge if it is returned within 1 year of purchase date.

REPLACEMENT CHUCKS AND KEYS

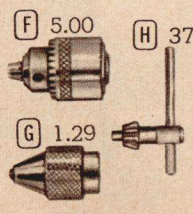
(F) ¼-INCH GEARED CHUCK. ⅜x24 thread. With key.
84 KR 9365—Ship. wt. 10 oz.....$5.00

⅜-INCH GEARED CHUCK. ⅜x24 thread. With key.
84 KR 9368—Ship. wt. 12 oz.....$5.50

½-INCH GEARED CHUCK. ½x20 thread. With key.
84 KR 9367—Ship. wt. 1 lb. 8 oz.....$6.75

(G) ¼-INCH HAND-TITE CHUCK. ⅜x24 thread.
84 KR 9364—Ship. wt. 9 oz..... 1.29

(H) REPLACEMENT CHUCK KEYS. Replace the Nos. listed.
84 KR 9371—Fit Supreme Chucks No. 1A, 1T1; Jacobs Chucks 1B and 1A. Ship. wt. 3 oz.....37c
84 KR 9372—Fit Supreme Nos. 4A, 4B, 4C, 4T1, 4T2; Jacobs 7B, 71-A, 7. Ship. wt. 3 oz.....43c



(F) 5.00

(G) 1.29

(H) 37c

84 KR 9369—Fits Supreme No. 13, Jacobs MC-4, 30-1A, 30-B. Ship. wt. 12 oz.....48c

84 KR 9373—Fits Supreme Nos. 3A, 3B, 3D, 3T2, 5B, 5D, 5T33; Jacobs 32B, 32, 33B, 33. Ship. wt. 4 oz.....53c

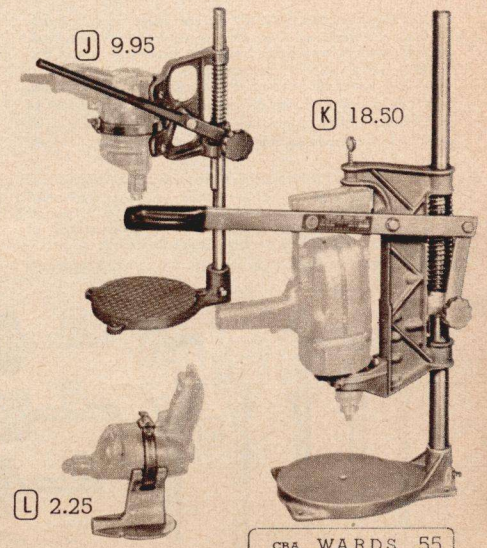
84 KR 9374—Fits Supreme Nos. 2A and Jacobs No. 2B. Ship. wt. 2 oz.....53c

DRILL STANDS 2.25 TO 18.50

(J) POWR-KRAFT ¼-IN. DRILL STAND. Converts any ¼-in. drill into easy-to-operate drill press. Drill held by clamp at top of stand. Drills to center of 8-in. circle, spindle travels 2¼ in. Strong tubular steel column, cast-iron base. 6-in. diam. cast-iron table. 5-to-1 handle leverage provides ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for mounting.
84 KR 9238—Ship. wt. 7 lbs.....$9.95

(K) POWR-KRAFT ½-IN. DRILL STAND. Converts Powr-Kraft drill (84 KR 9229M on Page 58) into easy-to-operate drill press. Drills to center of 6-in. circle Spindle travels 4½ in. A rugged, heavy-duty stand. 3-to-1 handle leverage gives ample pressure for deep drilling. Bracket adjustable for height and radial position; regulates depth. Steel column, aluminum base—mounting holes.
84 KR 9256 M—Ship. wt. 8 lbs. 8 oz. .$18.50

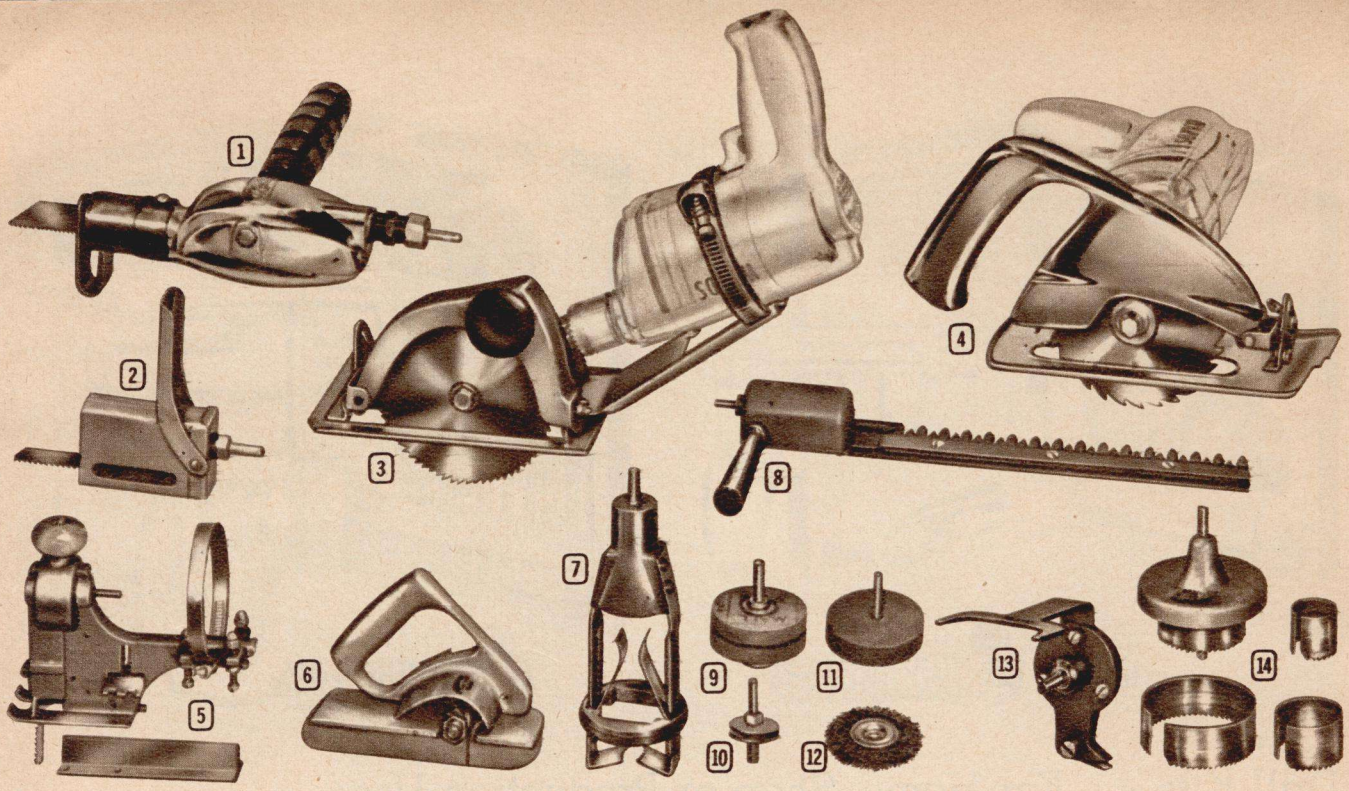
(L) HORIZONTAL DRILL STAND. Fits any ¼-in. drill. Fastens firmly to bench, leaves hands free. Alum. base. 6½x5x3½ in.
84 KR 9325—Ship. wt. 1 lb.....$2.25



(J) 9.95

(K) 18.50

(L) 2.25



50 Handy Attachments and Accessories to Increase

1 MALL RECIPROCATING SAW ATTACHMENT. For quick cutting of wood, metal and plastic. Easily cuts stock up to 2 x 4's. Use for sawing nails, cable, conduit pipe, etc. ¾-in. stroke. No special skill necessary. Operates at one-half drill speed. Sturdy die-cast aluminum housing. Fits any ¼-in. chuck. *Postpaid.*

84 KRP 9290—Actual weight 2 lbs. $14.95

84 KRP 9291—Extra Blade . . . . . Pkg. of 3 for 1.25

2 HACKSAW ATTACHMENT. Operates at 800 RPM or greater speed. Cuts to ¾ inch in wood; use on light-gauge metals only. Actual weight is only 11 oz., folds to 1x1½x4 inches. Comes with 3-inch woodcutting blade. Fits any ¼ or ⅜-inch chuck.

84 KR 9321—Ship. wt. 1 lb. $5.79

84 KR 9322—Blade for wood. Ship. wt. 9 oz. . . 3 for 45c

84 KR 9323—Blade for metal. Ship. wt. 9 oz. . . . 3 for 45c

3 4-INCH CIRCULAR SAW ATTACHMENT. Cuts up to 13/16 in. deep; bevels up to 45°. Easy to handle. Grease-sealed gears in cast-aluminum 1-piece gear box. With blade guard, handle and one 4-inch rip-crosscut saw blade. Fits any ¼-in. chuck.

84 KR 9310—Ship. wt. 2 lbs. 14 oz. $9.95

84 KR 9311—Extra blade for (3). Ship. wt. 8 oz. Ea. 98c

4 4-INCH CIRCULAR SAW ATTACHMENT. Cuts up to 1 inch, bevels up to 45°. Cast-aluminum housing. Oilite bronze bearings. Saw grip handle. With 4-inch rip-crosscut saw blade. Fits any ¼-in. chuck.

84 KR 9232—Ship. wt. 2 lbs. $5.95

84 KR 9250—Extra blade for (4). Ship. wt. 8 oz. . . Ea. 98c

5 JIG SAW ATTACHMENT. Saws wood up to 2 x 4's. Cuts patterns, circles, etc. in plywood, wallboard, metals. Makes openings without starting hole. Converts to bench saw by locking mounting T-bar in any vise. Has sawdust blower. Fits any ¼-in. drill chuck.

84 KR 9317—With 6 asst'd blades. Ship. wt. 3 lbs. . $9.45

84 KR 9309—Blade for wood. Pkg. of 6. Wt. 8 oz. . . 1.90

84 KR 9318—Blade for metal. Pkg. of 6. Wt. 8 oz. . . 1.60

6 PLANER ATTACHMENT. Planes soft or hardwood—with or across the grain—and plastics. Diagonal shearing action eliminates deflections from knots or bad grain. 6-flute spiral cutter. Adjustable depth of cut. Cutting width 1¾ in. Has Oilite bearing.

84 KR 9319—Fits any ¼-in. chuck. Ship. wt. 3 lbs $9.95

7 "SPIN-A-BRUSH" ATTACHMENT. Converts ¼-in. or larger drill into speedy paint brush cleaner. Cleans brushes quickly and easily in just 90 seconds.

84 KR 9254—¼-in. diam. shank. Ship. wt. 2 lbs. $1.95

8 HEDGE TRIMMER ATTACHMENT. Saves time—takes the "work" out of hedge trimming. 12-in. tempered alloy steel blade. Operates on any drill with speed of 800 to 2500 RPM and has at least ¼-in. chuck. Convenient side handle for ease in operation.

84 KR 9269—Ship. wt. 3 lbs. 4 oz. $9.95

9 MALL KNIFE SHARPENER ATTACHMENT. For putting quick, keen edges on dull blades—knife blades, scissor blades, etc. Hones blades. Center is grooved. Fits any ¼-inch drill chuck.

84 KRP 9297—*Mailed Postpaid*. $1.50

10 DRILL ARBOR. ¼-inch shank. Telescoping bushing fits ¼, ⅜, ½-in. holes. 2 inches long.

84 KR 9327—Ship. wt. 6 oz. 39c

11 3-IN. ABRASIVE WHEEL. Fully vitrified aluminum oxide, 60-grit. Fits any ¼-in. drill chuck.

84 KR 9333—Ship. wt. 3 oz. 59c

12 3-IN. MEDIUM WIRE SCRATCH BRUSH. Wt. 3 oz.

84 KR 9252—¼-inch arbor hole 75c

13 MALL METAL SHEAR ATTACHMENT. Cuts smooth even edges on metals up to 18 gauge (.05 in.). Get quick, clean cuts from keen, hardened steel cutting edge. Operates at twice drill speed. Ideal for cutting aluminum sheeting, stove pipe, etc.

84 KRP 9289—Fits any ¼-in. chuck. *Postpaid*. $7.95

14 BULL HOLE SAW ATTACHMENT. Cuts holes in any stock—wood, plastic, soft metals to ¾-in. depth. With four high-carbon steel blades, 1, 1½, 2, 2½-in. diameter. Light but rugged. Has aluminum arbor with satin finish. Fits any ¼-in. drill chuck.

84 KRP 9324—*Mailed Postpaid*. $4.95

15 POWER AUGER BITS. Bore holes up to 4 inches deep. Fit any ¼-in. chuck. Ship. wt. each 2 oz.

84 KR 4524—*State diameter.*

⅜ in. . . . . 60c ⅝ in. . . . . 65c ⅞ in. 69c

½ in. . . . . 60c ¾ in. . . . . 65c 1 in. 75c

SET OF SIX POWER AUGER BITS (15) ABOVE.

84 KR 4522—Ship. wt. 3 lbs. . . . . Set $3.49

16 TO 19 ROTARY MOUNTED GRINDING TOOLS. Fit electric drills and flexible shafts. For finish work, die-cutting, etc. Points made of 60-grit, vitrified aluminum oxide. Grinding tools have ¼-inch diameter steel shafts. Sizes are actual stone size.

84 KR 9331—*State shape wanted.*

(16) Straight 1x1 in. Ship. wt. 3 oz. 45c

(17) Cone 11/16 x 1¼ in. Ship. wt. 3 oz. 45c

(18) Round 1 x 1 in. Ship. wt. 3 oz. 45c

(19) Cylinder ½ x 1 in. Ship. wt. 3 oz. 45c

SET OF FOUR. Includes (16), (17), (18) and (19) above.

84 KR 9332—Ship. wt. set 1 lb. . . . . Set $1.65

20 TO 27 HAND-CUT ROTARY FILES. For close tolerance work. Fit ¼-in. chuck. Shank ¼-in. diameter, 1¼ in. long. Hardened, tempered high-speed steel. Deep cut for long service. Wt. each 4 oz.

	Cat. No.	Shape	Diam.	Each
(20)	84 KR 9338	Tree Pointed Nose	½ in.	$1.89
(21)	84 KR 9339	90° Cone Deburring	½ in.	1.75
(22)	84 KR 9337	Cyl. Radius Nose	¼ in.	1.49
(23)	84 KR 9335	Ball Shape	⅜ in.	1.49
(24)	84 KR 9336	Cylindrical Flat Nose	½ in.	1.98
(25)	84 KR 9340	Cone Pointed Nose	5/16 in.	1.59
(26)	84 KR 9342	Convex Concave	¼ in.	1.49
(27)	84 KR 9341	Inverted Cone	½ in.	1.98

ROTARY FILE ASSORTMENT. Save $1.21 by ordering entire set at one time. Includes (20 through (27).

84 KR 9343—Ship. wt. 2 lbs. . . . . Set of eight $12.45

28 HOLE CUTTER. Cuts holes ⅞ to 4-in. diam. ¼-in. diam. shaft. Fits ¼-in. chuck; bit braces.

84 KR 3656—Ship. wt. 12 oz. $1.69

84 KR 3657—EXTRA BLADE. Ship. wt. 2 oz. 35c

29 COUNTERSINK. For wood, soft metals. ¼-in. round shank. 2½ in. long. Ship. wt. 4 oz.

84 KR 4167—⅝-in. . . . . 29c ¾-in. 35c

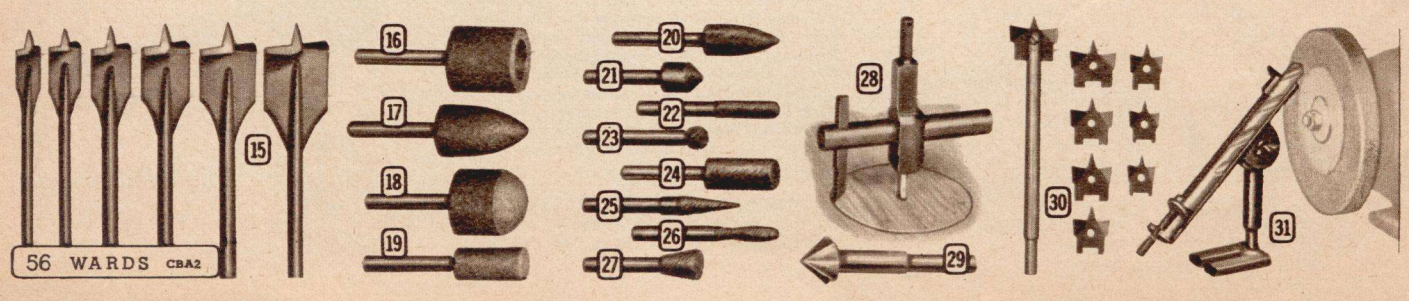
30 BORING TOOL SET. Interchangeable spring steel cutter for wood, plastics, etc. 8 sizes: 9/16, ⅝, 11/16, ¾, 13/16, ⅞, 15/16, 1 in. Shank fits ¼-in. chuck.

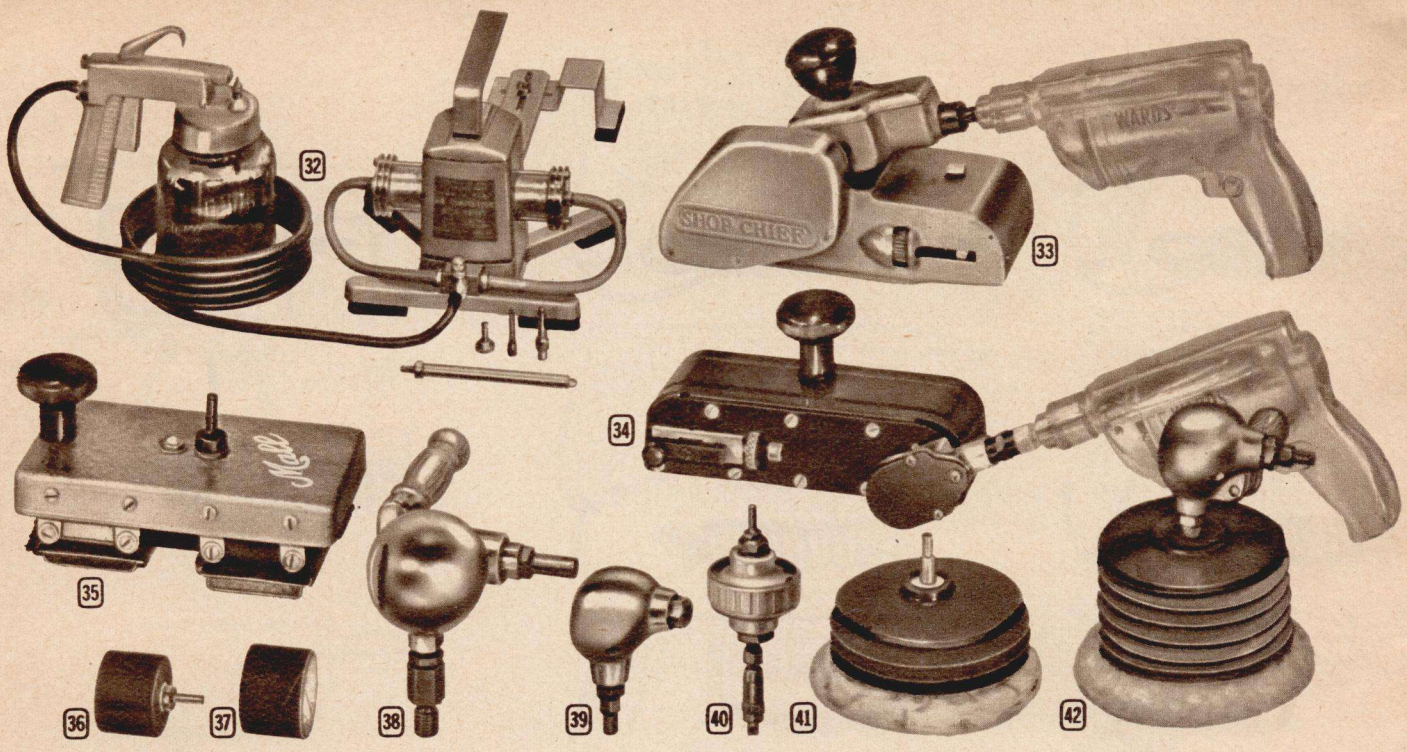
84 KR 4500—Ship. wt. 6 oz. . . . . Set of 8 $1.79

31 DRILL GRINDER STAND. Adjustable. Instructions.

84 KR 4501—Ship. wt. 1 lb. $2.49

SEE PAGE 55 FOR REPLACEMENT CHUCKS AND KEYS.





The Usefulness of Your Portable Electric Drill

32 NEW AIR COMPRESSOR AND PAINT SPRAYER. Here's an attachment that really adds to your home workshop. Use for painting, cleaning those hard-to-get-at places, inflating toys, tires, etc. Fits any ¼-in. chuck. Compressor is twin cylinder, piston type. Has bleeder-type spray gun threaded to accept 1-qt. glass mason jar. External mix, siphon type gun designed for fast-drying paints, lacquers, shellacs, etc. Has capacity of 0.5 cu. ft., 25 pounds per sq. in. at 1500 RPM.

Unit includes: air compressor, spray gun, 1 qt.-mason jar, 10-ft. rubber hose, pressure regulator, 50-lb. capacity air gauge, 3 air inlet valve adapters, support bracket and instructions. Shipped from Stock in Chicago, Baltimore or Oakland; order and pay postage from your usual Mail Order House.

84 KR 9267T—Ship. wt. 8 lbs.....$14.95

33 SHOP CHIEF BELT SANDER. Has 10 sq. in. sanding area. 2x17½-in. endless sanding belt. Bronze bearings sealed in grease for years of service—give smooth, efficient operation for the home craftsman. Cast-aluminum housing. With 1 light and 1 medium pressure pad, 1 medium grit belt. Fits any ¼-in. chuck.

84 KRP 9326—*Postpaid.* $2 Down.....Cash $19.95

SANDING BELTS. Aluminum oxide. Fine, medium and coarse grits. Fit (33) above. 2x17½ in. *State grit wanted.*

84 KR 9350—Ship. wt. 2 oz.....Each 29c

34 MALL 2-IN. BELT SANDER. 8½ sq. in. sanding area. Perfect for cabinet and woodcraft projects—makes smooth surfaces and edges in few moments. All steel housing. Bevel gears, oil impregnated bearings. Adjustable belt tension on 2x17.38 in. endless belt. Actual weight only 4 lbs. With 3 assorted belts.

84 KRP 9294—Fits ¼-in. chuck. *Postpaid*.....$16.50

SANDING BELTS. Aluminum oxide. Fine and medium grits. Fit (34) above. 2x17.38 in. *State grit wanted.*

84 KR 9354—Ship. wt. 2 oz.....Each 25c

35 MALL RECIPROCATING SANDER ATTACHMENT. Convert your portable electric drill to an efficient, labor-saving sander—fits any ¼-in. chuck. Approx. 24 sq. in. sanding area. Easily removes paint or varnish—use for sanding walls, floors, boats, workshop projects—use at factory for general sanding work. For any type of sanding from coarsest surfacing to fine work on wood, metals, stone, tile or concrete. Made of lightweight magnesium and aluminum alloy.

84 KRP 9292—*Mailed Postpaid*.....$15.95

36 SANDING DRUM. Rubber-cushioned sanding drum, expansion type grip. Excellent for hard-to-get-at curved holes—saves time and labor. Easy to use—no special skill necessary.

84 KR 9330—Fit ¼-in. chucks. *State width.*

1 in. wide x 1-in. diameter. Ship. wt. 6 oz.....45c

1½ in. wide x 1½-in. diameter. Ship. wt. 6 oz....49c

2 in. wide x 1½-in. diameter. Ship. wt. 6 oz.....59c

37 SANDING SLEEVES. For (36) above. Available in fine, medium or coarse grit. *State width and grit.*

84 KR 9351—Ship. wt. 2 oz.....5 for 35c

38 HEAVY-DUTY RIGHT-ANGLE DRIVE. For ½-in. drills. 2-to-1 gear ratio. Reduces speed to ½ for drilling holes up to 2½ in. in wood, or doubles speed for ideal polishing speed—simply reverse drive position on drill spindle. Fits directly on spindle. Helical cut Boston steel gears. Stress-proof spindles.

84 KRP 9315—*Mailed postpaid*.....$16.50

39 RIGHT-ANGLE DRIVE. Medium duty. 2-to-1 gear ratio. Cuts to ½, or doubles drill speed. Fits directly on drill spindle. Close coupled.

84 KRP 9314—For ¼-in. drills. *Postpaid*.....$4.25

40 5-TO-1 SPEED REDUCER. Hand clutch. Grip speed reducer—tool starts; release—tool stops. Torque increases as speed reduces. Use as screwdriver—fits Nos. 8 and 10 screws.

84 KRP 9316—Fits ¼-in. chuck. *Postpaid*.....$8.95

41 5-INCH SANDING AND POLISHING KIT. Comes with rubber disc, 3 assorted 5-inch sandpaper discs, wool buffer. Fits ¼-inch chucks.

84 KR 9329—Ship. wt. 1 lb.....Complete kit 98c

42 ANGLE HEAD KIT. Use in either direction—has 2-to-1 gear ratio—gives double or half drill speed as desired. Either end can be put into any ¼-in. drill chuck or screwed directly on drill spindle while drill chuck is screwed on other end of angle head—excellent for drilling in tight places. Unit includes 4⅞-in. diameter rubber pad; 3 garnet discs—fine, medium and coarse grits; 1 lambswool bonnet.

84 KR 9312—Wt. 1 lb. 8 oz. *Mail*...Complete kit $5.75

5-IN. LAMBSWOOL BONNETS. Fit (42) above.

84 KR 9328—Ship. wt. 8 oz.....2 for 98c

43 4-PIECE MASONRY DRILL SET. Carbide-tipped steel drills. Sizes: ¼, 5/16, ⅜, ½. Have ¼-in. shanks.

84 KR 4515—Ship. wt. 1 lb.....Set of four $4.98

44 21-PIECE HIGH SPEED SET. 1/16 to ⅜ in. by 64ths. In indexed folding case, 5x4¾x1 in.

84 KR 4513—Ship. wt. 2 lbs.....Set $10.75

45 5-PIECE DRILL BIT SETS. ¼-in. round shanks. ¼ to ½ in. by 16ths. Carbon steel for wood, soft metals; High Speed, for wood, hard metal.

84 KR 4508—High Speed steel. Ship. wt. 9 oz. Set $4.39

84 KR 4506—Carbon steel. Ship. wt. 9 oz.....Set 2.49

INDIVIDUAL DRILL BITS. Same as (45). Ship. wt. 5 oz.

84 KR 4507–Carbon steel. 84 KR 4509–High Speed steel.

Size	84 KR 4507	84 KR 4509	Size	84 KR 4507
¼ in.	25c	49c	9/16 in.	$1.09
5/16 in.	35c	89c	⅝ in.	1.35
⅜ in.	45c	$1.09	11/16 in.	1.59
7/16 in.	65c	1.45	¾ in.	1.89
½ in.	79c	1.79		

46 7-PIECE STRAIGHT SHANK DRILL SETS. 1/16 to ¼ inch by 32nds. Plastic case included.

84 KR 4519—High Speed. Ship. wt. 8 oz.....$2.39

84 KR 4518—Carbon Steel. Ship. wt. 8 oz..... 1.39

47 10-PIECE STRAIGHT SHANK DRILL SETS. Most used Sizes from 1/16 to ¼ inch.

84 KR 4530—High-Speed. Ship. wt. 2 lbs....Set $2.89

84 KR 4531—Carbon Steel. Ship. wt. 2 lbs....Set 1.69

48 29-PIECE DRILL SETS. Sizes 1/16 to ½ in. by 64ths. Comes with stand. Ship. wt. 4 lbs. 8 oz.

84 KR 4533—High Speed Steel.....Set $19.50

84 KR 4534—Carbon Steel.....Set 9.95

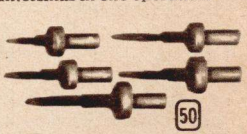
49 60-PIECE WIRE GAUGE DRILL SETS. Sizes 1 to 60. Handy steel case 5x4¾x1 in.

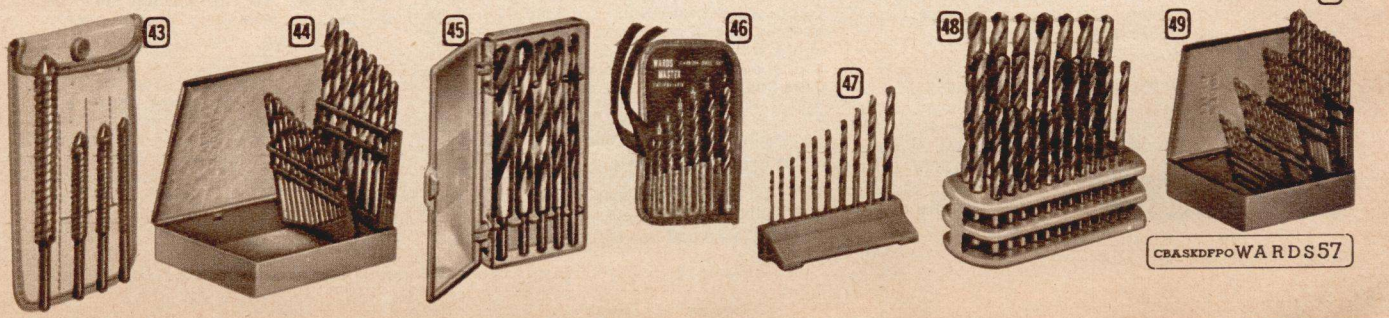
84 KR 4536—High Speed. Wt. 7 lbs. 8 oz.....Set $16.50

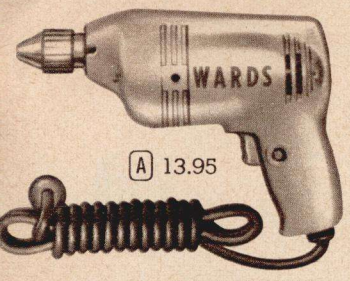
84 KR 4537—Carbon Steel. Wt. 7 lbs. 8 oz....Set 9.95

50 5-PIECE COMBINATION DRILL, COUNTERSINK SET. Drills holes and countersinks in one operation. Fit ¼-in chucks. Fit sizes for wood screws: ¾ in. No. 7; 1 in. No. 8; 1¼ in. Nos. 8, 10; 1½ in. No. 12. Wt. 8 oz.

84 KR 4163....Set $3.49







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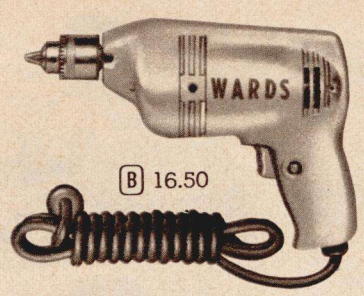

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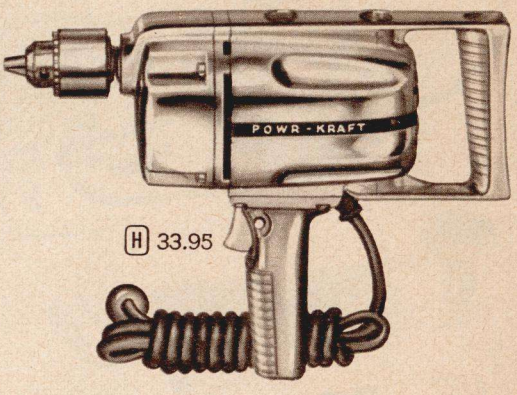

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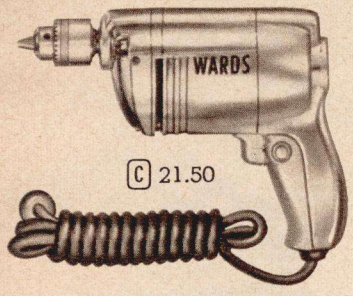

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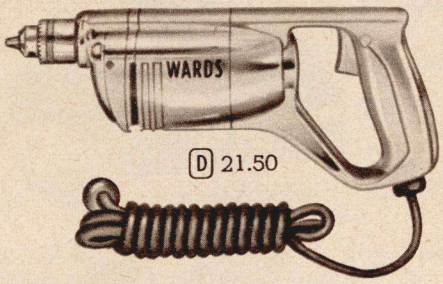

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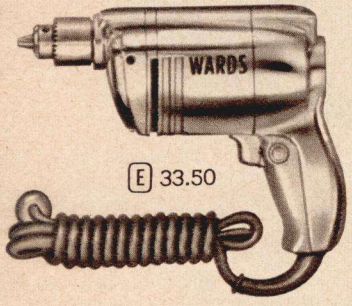

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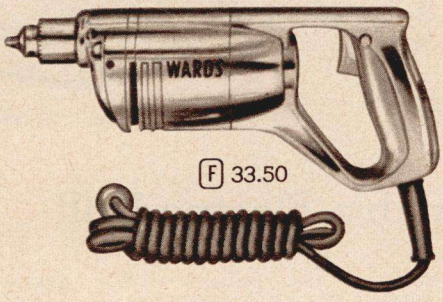

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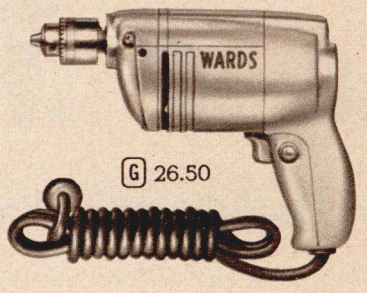

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Choosing the Correct Portable Electric Drill For Your Needs

Selection of a drill should be guided by (1) the amount of work to be done and (2) the type of work. If work will consist mostly of occasional, intermittent jobs in home or shop, a light or medium-duty drill with bronze bearings will fill your needs. If you plan to use it on production or repair or garage jobs requiring continuous operation, you need a heavy-duty model with ball bearings.

The type of work you do will determine the capacity of your drill. Capacity is the diameter of the largest size shank the chuck will take. For most workshop use a ¼-in. capacity drill will be satisfactory, but for heavier work a ⅜ to ¾-in. capacity is needed, with the ½-in. size being one of the most popular models.

OTHER DESIRABLE FEATURES. The chuck is a most vital part of any drill. Three main types are in use: (1) the hand-tite chuck, which is opened and closed manually, usually found on light-duty models only; (2) the hex type, operated by use of a hex shaped key (similar to that used to tighten set screws); and (3) the geared type chuck, operated by a separate chuck key, which gives an exceptionally tight hold, yet opens and closes quickly.

Drills should be compactly built in order to get into tight corners, yet should have sufficient power to operate to full capacity. It should be light in weight so it can be easily handled in any position without fatigue. Comfortable hand grips are needed with a convenient on-off switch having a locking arrangement for continuous running. Underwriters' Laboratory approval on a drill is your assurance that it has been inspected for safety.

EXTENSION CORDS 1.95 TO 8.45

J HEAVY 2-WIRE EXTENSION CORDS. For electric drills and other light-duty power tools. Two 16-gauge copper wires. Heavy rubber insulation; rubber plug on one end, outlet on the other. UL Approved. *Mailable.*

83 KR 1271L—25-ft. cord. Ship. wt. 2 lbs. $1.95

83 KR 1275L—100-ft. cord. Ship. wt. 7 lbs. 6.75

HEAVY 3-WIRE EXTENSION CORDS. Meet new Electrical Code requirements for grounding portable tools. Cords have flexible copper wire with heavy rubber insulation. Rubber plug on one end, outlet on other end. UL Approved. *Mailable.*

J 83 KR 1279L—16-ga., 15 ft. Wt. 1½ lbs. . $3.45

83 KR 1270L—Extra-heavy 14-ga., 25-ft. cord. Wt. 5 lbs. . . $8.45

Wards Powr-Kraft Electric Drills

GUARANTEED POWR-KRAFT DRILLS, LIGHT, MEDIUM AND HEAVY-DUTY 13.95 TO 33.95

For the hobbyist, the garage or shop or the factory, Wards have a Powr-Kraft Electric Drill to fill the job. Powr-Kraft Drills feature the latest in design and engineering plus the finest workmanship, and are available in a variety of sizes and models for every need. All have strong but lightweight die-cast aluminum alloy housings with heat-treated alloy steel gears for long service. Powerful universal-type electric motors are designed to operate on 110–120 volts AC or DC and all are approved by Underwriters' Laboratories. Forced air ventilation keeps drills from overheating. Easily cleaned and serviced. Handy lock-type trigger switch on grip allows continuous operation. Complete with rubber-covered cord and plug. All Powr-Kraft drills *Mailable.*

GUARANTEE: If any Wards Powr-Kraft electric drill listed on this page shows any defects in materials or workmanship under normal use, we will repair it at no charge if it is returned within one year of the purchase date. Repair parts and service are available on all Wards electric drills.

A B WARDS LIGHT-DUTY ¼-IN. DRILLS. For intermittent use. Self-lubricating bronze sleeve bearings. ¼-inch capacity in steel, ½ inch in hardwood. No-load speed 1600 RPM, full-load speed 900 RPM. 8¼ in. long. Aluminum housing has satin finish. Fan-type ventilation. 6-ft. rubber cord. Pistol grip.

(A) ¼-IN. DRILL WITH HAND-TITE CHUCK. Sells nationally under manufacturer's own name for $17.88. Actual weight only 3¼ lbs.

84 KR 9264—Ship. wt. 4 lbs. . . . . Only $13.95

(B) ¼-IN. DRILL WITH GEARED CHUCK. Sells nationally under manufacturer's own name for $19.88. Actual weight only 3¼ lbs.

84 KR 9266—Ship. wt. 4 lbs. . . . . Only $16.50

C D WARDS MEDIUM-DUTY ¼-IN. DRILLS. Designed for utility use in home or shop, garage, etc., on all types of wood or metals. Self-lubricating bronze bearings on spindle for smooth, quiet operation, with ball bearings at points of greatest strain. Capacity ¼ inch in steel, ¾ inch in hardwood. 3-jaw geared-type chuck with key. No-load speed 1500 RPM, full-load speed 900 RPM. Choice of palm or spade grip. Satin finish housing. Ship. wt. 4 lbs.

(C) ¼-IN. PALM GRIP DRILL. 8¼ in. long. Sells nationally under mfr's. name for $24.95.

84 KR 9233—$2.50 Down. . . . . Cash $21.50

(D) ¼-IN. SPADE GRIP DRILL. 10¾ in. long. Sells nationally under mfr's. name for $24.95.

84 KR 9234—$2.50 Down. . . . . Cash $21.50

E F WARDS HEAVY-DUTY ¼-IN. DRILLS. Meet Government Specifications WD-661, Navy 40T3 and Mil-885. Have grease sealed ball and needle bearings for continuous production work. Capacity ⅜ inch in steel, 1 inch in wood. 3-jaw geared type chuck. No-load speed 1800 RPM, full-load speed 1200 RPM. Cord has third wire for grounding. Mirror finish housing.

(E) ¼-IN. PALM GRIP DRILL. 8 in. long. Sells nationally under manufacturer's name for $39.50.

84 KR 9235—Wt. 4 lbs. $3.50 Dn. . . Cash $33.50

(F) ¼-IN. SPADE GRIP DRILL. 10¾ in. long. Sells nationally under mfr's. name for $39.50.

84 KR 9236—Wt. 4 lbs. $3.50 Dn. . . Cash $33.50

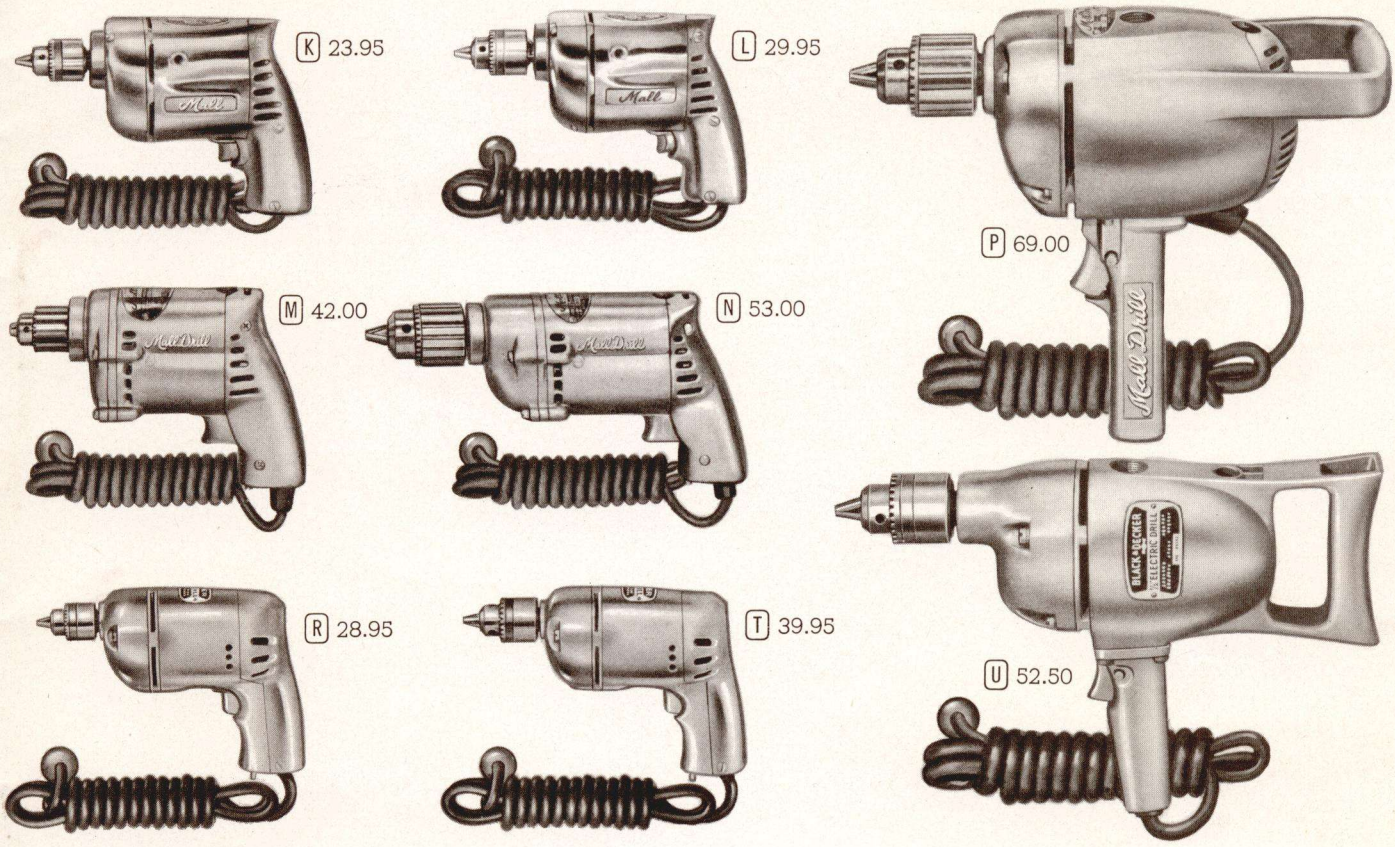
G WARDS MEDIUM-DUTY ⅜-IN. DRILL. Especially designed for use in home, garage, etc. Ball and bronze bearings. Capacity ⅜ inch in steel, ¾ inch in hardwood. No-load speed 1000 RPM, full-load speed 600 RPM. 3-jaw geared type chuck. Pistol grip. Satin finish housing. 8¼ in. long. With 10-ft., 3-wire cord.

84 KR 9257—Wt. 4 lbs. $3 Down. . Cash $26.50

H WARDS HEAVY-DUTY ½-IN. DRILL. Oil retaining bronze bearings with ball thrust bearing on spindle. ⅝-in. capacity in steel, 1 inch in wood. No-load speed 450 RPM, full-load speed 300 RPM. 3-jaw geared-type chuck. Size 13½ x 14¾ in. Mirror finish housing. Pistol grip. Sells nationally under manufacturer's own name for $41.44. Ship. wt. 11 lbs.

84 KR 9229M—$3.50 Down. . . . . Cash $33.95

SEE PAGES 55 TO 57 FOR WARDS COMPLETE LISTINGS OF ACCESSORIES FOR ELECTRIC DRILLS



Black & Decker, Mall and Sunbeam Electric Drills

NATIONALLY KNOWN MALL DRILLS 23.95 TO 115.00

(K) (L) MALL MEDIUM-DUTY DRILLS. Designed for general utility work in home or workshop. Extremely handy for hobbyists and "do-it-yourself" enthusiasts. Each drill has the following features: Self-lubricating bronze bearings with ball bearing at commutator. Hardened alloy steel gears. 3-jaw geared chuck with key for most efficient locking of drill bit. Strong but lightweight die-cast aluminum alloy housing—mirror finish. Universal motor operates on 110–120-volt, AC-DC. Trigger switch with lock for continuous operation. Pistol grip. Rubber covered cord with third wire for grounding. UL Approved.

(K) MALL MEDIUM-DUTY 1¼-IN. DRILL. Capacity ¼ inch in steel, ½ inch in hardwood. No-load speed 2500 RPM, full-load speed 1600 RPM.

84 KRP 9275—Actual weight 3 lbs. *Mailed Postpaid.* $2.50 Down...Cash $23.95

(L) MALL MEDIUM-DUTY ⅜-IN. DRILL. Capacity ⅜ inch in steel, ¾ inch in hardwood. No-load speed 650 RPM, full-load speed 400 RPM.

84 KRP 9282—Actual weight 4 lbs. *Mailed Postpaid.* $3 Down.....Cash $29.95

(M) TO (P) MALL HEAVY-DUTY PRODUCTION TYPE DRILLS. Built for continuous, heavy work on wood or metal. Precision-ground ball bearings are grease sealed. Tough helical cut alloy steel gears are accurately meshed. All have 3-jaw geared-type chucks with keys. Powerful universal-type motors. All are UL Approved, operate on 110–120-volt AC-DC. Forced air ventilation system permits necessary cooling. All have lightweight cast aluminum alloy housings with mirror finish. Rubber-covered cords and plugs have third wire for grounding. Trigger switches lock on for continuous operation.

(M) MALL HEAVY-DUTY ¼-IN. DRILL. Powerful but light in weight, will stand up under continuous production use. Capacity ¼ inch in steel, ¾ inch in wood. No-load speed 2500 RPM, full-load speed 1500 RPM. Palm grip. $4.50 Dn.

84 KRP 9276 L—*Mailed Postpaid.* Length 8½ in. Act. wt. 2 lbs. 14 oz. Cash $42.00

(N) MALL HEAVY-DUTY ⅜-IN. DRILL. Larger capacity but lightweight, easy to handle. A favorite in production shops and garages. Capacity ⅜ inch in steel, ¾ inch in hardwood. No-load speed 800 RPM, full-load speed 480 RPM. Palm grip handle. Size 10¼x5x2¾ in. Actual weight only 5 lbs.

84 KRP 9277 L—*Mailed Postpaid.* Only $5.50 Down on Terms.....Cash $53.00

(P) MALL HEAVY-DUTY ½-IN. DRILL. Plenty of power for biggest production jobs. Capacity ½ inch in steel, 1 inch in hardwood. No-load speed 500 RPM, full-load speed 300 RPM. Two side handles; upper one removable for drilling in tight places. Bottom handle forms pistol grip. Main handle is integral part of housing. Size 12⅛x9⅜x3⅞ in. Actual weight only 8 lbs.

84 KRP 9279 M—*Mailed Postpaid.* Only $7 Down.....Cash $69.00

MALL HEAVY-DUTY ⅝ AND ¾-IN. DRILLS. For extra-heavy continuous production jobs. ⅝-in. drill has capacity of ⅝ inch in steel, 1¼ inch in hardwood. No-load speed 300 RPM; full-load speed 180 RPM. ¾-in. drill has capacity of ¾ inch in steel, 1½ inch in hardwood. No-load speed 250 RPM, full-load speed 150 RPM. Size 17x15x5 in. Actual weight 18 lbs. *Mailed Postpaid.*

84 KRP 9278 K—⅝-IN. CHUCK CAPACITY Only $10.50 Down.....Cash $105.00

84 KRP 9280 K—¾-IN. CHUCK CAPACITY. Only 11.50 Down.....Cash 115.00

NATIONALLY KNOWN BLACK & DECKER DRILLS 28.95 TO 52.50

Choose a medium or heavy-duty drill from these top quality Black & Decker models—for many years the choice of experienced craftsmen for outstanding, dependable service. Each drill below has the following features: Ball thrust bearing on spindle; remainder self-lubricating bronze bearings. Hardened alloy steel gears, accurately meshed. 3-jaw geared chuck with key. Strong but lightweight die-cast aluminum alloy housing. Universal motor, operates on 110-120 volt, AC-DC. Trigger switch with lock for continuous operation. Rubber covered cord with third wire for grounding. UL Appr.

(R) (T) BLACK & DECKER MEDIUM-DUTY DRILLS. For general utility work in home, shop or garage. Mirror finish on housing.

(R) ¼-IN. DRILL. Capacity ¼ inch in steel, ½ inch hardwood. No-load speed 2250 RPM, full-load speed 1400 RPM. Actual weight only 3 lbs.

84 KRP 9390—*Mailed Postpaid.* Only $3 Down.....Cash $28.95

(T) ⅜-IN. DRILL. Capacity ⅜ in. in steel, ¾ in. in hardwood. No-load speed 1000 RPM, full-load speed 600 RPM. Actual weight 3¼ lbs. Shipped promptly from Chicago, Baltimore or Oakland. Order from regular M.O. House.

84 KRP 9392 T—*Mailed Postpaid.* Only $4 Down.....Cash $39.95

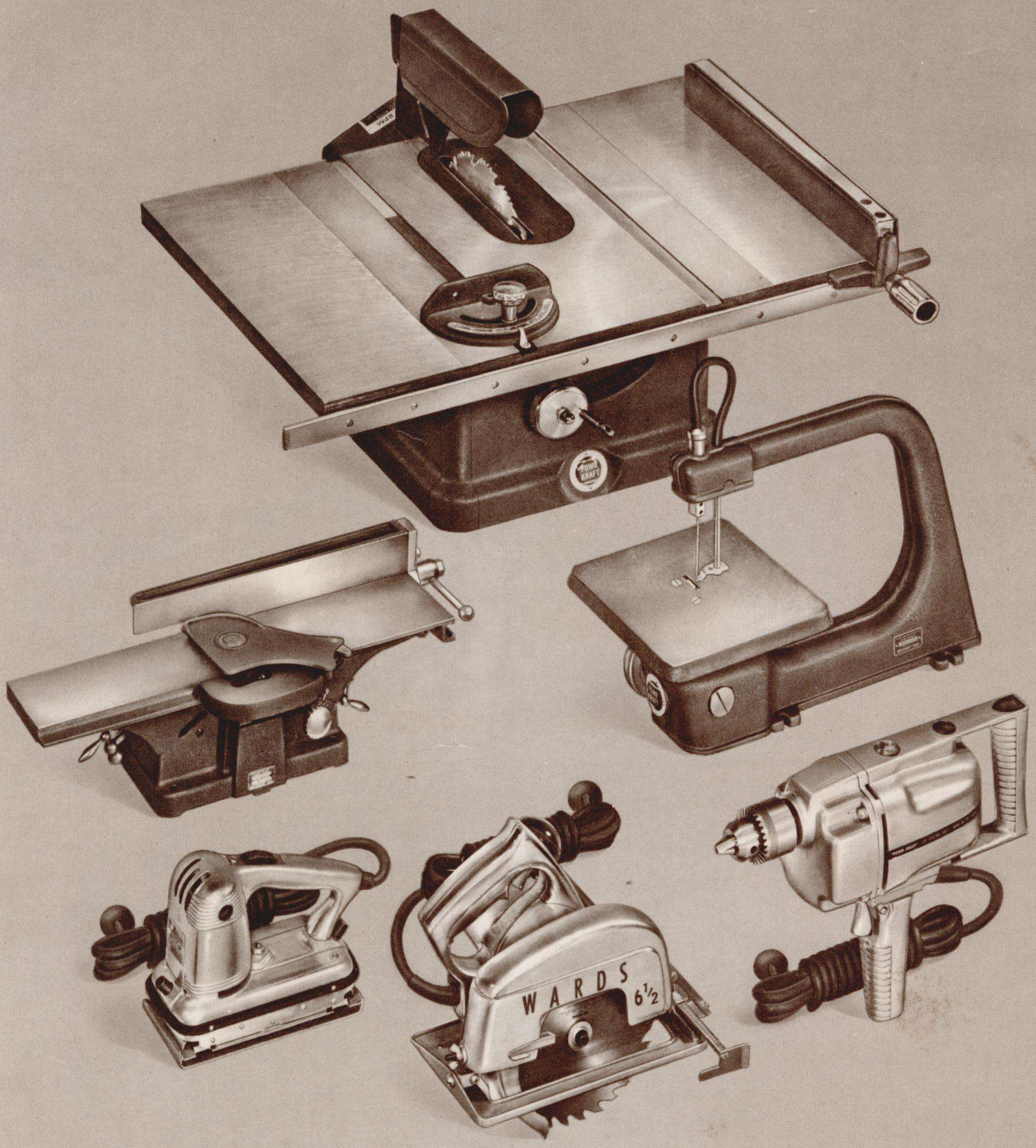
(U) BLACK & DECKER HEAVY-DUTY ½-IN. DRILL. For continuous operation—meets production standards. Rugged, yet accurate. Capacity ½ in. in steel, 1½ in. in hardwood. No-load speed 375 RPM, full-load speed 250 RPM. Comfortably balanced—spade grip, pistol grip and removable pipe grip (not shown but included). Satin finish. Actual weight 8½ lbs.

84 KRP 9391M—*Mailed Postpaid.* Only $5.50 Down.....Cash $52.50

NATIONALLY KNOWN SUNBEAM DRILL . . . ONLY 24.95

(V) SUNBEAM "DRILLMASTER" ¼-IN. MEDIUM-DUTY DRILL. Made by manufacturer of the famous Mixmaster and other home appliances. Excellent for "do-it-yourself" enthusiasts, small shop repair men, etc. Especially useful for drilling thin sheets of aluminum, steel, copper, etc. because of its high no-load speed of 2200 RPM and full-load speed of 1100 RPM. Doesn't tear or fray edges, gives clean, smooth holes. Capacity ¼ in. in metal, ½ in. in wood. Drill has ball thrust bearing on spindle; others are oilless bronze sleeve bearings. Has Jacobs 3-jaw geared chuck with key. Air intake vents in base and side permit necessary cooling. Universal motor is well balanced, easy to handle. For 110–120-volt, 60-cycle, AC-DC. UL Approved. Drill comes equipped with 2-wire, rubber-covered cord with plug. *Mailed Postpaid* promptly from Stock in Chicago, Baltimore or Oakland. Order from nearest Mail Order House. Actual weight only 4 lbs. 8 oz. Only $2.50 Down, see terms Page 32.

84 KRP 9386 T.....Cash $24.95



PRECISION-BUILT POWR-KRAFT TOOLS

Wards Powr-Kraft tools give you superior quality at exceptionally low prices. They are designed by master craftsmen, and include all essential features that make for greater accuracy and faster, smoother operation. You'll also find many other nationally-known brand names including Mall, Beaver, Logan, Sunbeam, Black & Decker, Stanley, etc.

Bench Saw pictured above is described on Page 10; Jointer on Page 15; Jig Saw on Page 17; Sander on Page 53; Portable Electric Saw on Page 49; Electric Drill on Page 58.

Montgomery Ward